VOL. XXXV July, 1878. NUMBER 1.

THE

SAINT LOUIS Medical and Surgical JOURNAL.

THOS. F. RUMBOLD, M. D.,
EDITOR AND PROPRIETOR.

HIRAM CHRISTOPHER, M. D.,
ASSOCIATE EDITOR.

ESTABLISHED 1843.

SAINT LOUIS:
GEO. O. RUMBOLD & CO., PUBLISHERS,
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See Index to Advertisements Page xxiv.

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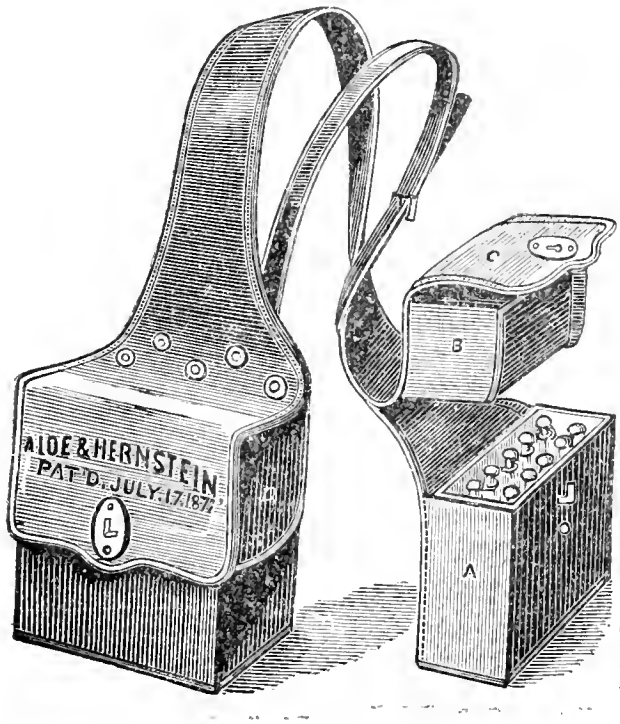

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☞The EDITORS hold themselves responsible for the Character of the Contributions, but not for the Opinions expressed in them.

Notice to Contributors and Correspondents.

Articles intended for publication in the next number should be forwarded one month prior to the date of publication. They must be contributed to this Journal exclusively.

Contributions of original articles are invited from all parts of the country. The publishers offer all facilities for illustration by wood cuts or lithographs of first-class workmanship, at their own expense. At their request authors will be supplied without charge with a limited number of copies containing their articles; extra copies printed separately can be furnished only at the expense of the authors. Declined communications are preserved for six months, and will be returned within that time, on application and transmission of the necessary postage.

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Foreign exchanges and books for review should be sent under cover to Messrs. Williams & Norgate, 14 Henrietta Street, Covent Garden, London; or to Herr B. Hermann, Leipzig; or M. Charles Reinwald, 15 Rue des Sts. Peres, Paris.

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THE REGULAR SESSION will begin on Wednesday, October 2, 1878, and end about the 1st of March, 1879.

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A distinctive feature of the method of instruction in this College is the Union of clinical and didactic teaching. All the lectures are given within the Hospital grounds. During the Regular Winter Session, in addition to four didactic lectures on every week-day except Saturday, two or three hours are daily allotted to clinical instruction.

The Spring Session consists chiefly of Recitations from Text-books. This term continues from the first of March to the first of June. During this Session daily recitations in all the departments are held by a corps of examiners appointed by the Faculty. Regular clinics are also given in the Hospital and in the College Building.

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For the Annual Circular and Catalogue, giving regulations for graduation and other information, address Prof. AUSTIN FLINT, JR., Secretary Bellevue Hospital Medical College.

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NEW ORLEANS.

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The regular lectures at the Hospital, on Clinical Medicine by Professors Bemiss, Elliott and Joseph Jones; Surgery by Professors Richardson and Logan, Diseases of Women and Children by Professor Lewis, and Special Pathological Anatomy, by Professor Chaille, will be delivered in the amphitheater on Monday, Wednesday, Thursday and Saturday from 10 to 12 A. M.

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* For further information upon these points see circular.

THE ST. LOUIS

Medical and Surgical Journal.

ESTABLISHED IN 1843.—PUBLISHED MONTHLY.

THOS. F. RUMBOLD, M. D., Editor and Proprietor; HIRAM CHRISTOPHER, M. D., Associate Editor.

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The Translations from the German, French and Spanish Medical and Scientific Journals, will be from those articles which contain the *advance* views of the Medical and Scientific men living in those countries.

THE JOURNAL will contain a full Report of the Proceedings of the St. Louis Medical Society, and a Summary of all the Societies in Missouri, and of many in Illinois and other States, thus placing before its readers the latest views and experiences of the profession in all the Departments of Medicine, Practical as well as Theoretical.

It will be the aim of the Editors, in all respects, to maintain the high and honorable position it has so long held. No personalities shall ever soil its pages; when discussions cannot be carried on without these, space in its columns will be declined.

Contributions of Original Articles on both Medical and Scientific subjects are invited from all parts of the country.

Articles on the following subjects will appear in the present volume:

Contributions on Fractures. By JOHN T. HODGEN, M. D., Professor of Surgical Anatomy, Fractures and Dislocations in St. Louis Medical College.

Contributions on Syphilis. By THOS. KENNARD, M. D., of St. Louis.

Contributions on Lithotomy. By DAVID PRINCE, M. D., of Jacksonville, Ill.

Contributions on Genito-Urethral and Rectal Surgery. By W. HUTSON FORD, M. D., of St. Louis.

Contributions on the Present State of Pathology of Phthisis Pulmonalis. A Series of Papers by J. HILGARD TYNDALE, M. D., of New York City.

Contributions on Genesis. A Series of Papers. By the Associate Editor.

Contributions on Urinary and Renal Diseases. By JOHN BRYSON, M. D., of St. Louis.

Contributions on Medical Experts as Witnesses. By FRED. T. LEDERGERBER, ESQ., of St. Louis.

Contributions on Nasal, Pharyngeal, Aural, Laryngeal and Bronchial Diseases. By the Editor.

From the above it will be seen that it is not the intention of the editors to confine THE JOURNAL to subjects relating to Medicine and Surgery alone; subjects collateral to these will receive attention, and such are invited from the profession. The departments of science are so closely connected as to make it almost impossible for a Physician or Surgeon to be proficient as such, without considerable knowledge of kindred branches.

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Our "Hospital Quinine" Pills are made as set forth in our circular of March 27th, which we reprint for the information of those who may not have seen it before.

With the assurance to the trade and medical profession, that we will always manufacture our preparations, as we have in the past, in **perfect good faith,** that we will use the best materials obtainable, increasing our knowledge by every means in our power, for examining and testing all ingredients and perfecting our business, we remain,

Very respectfully. McKESSON & ROBBINS.

NEW YORK, APRIL 17th, 1878.

"MESSRS. McKESSON & ROBBINS,

Gentlemen:—Having been requested by you to make an assay of the alkaloids contained in your Gelatine-Coated Quinine Pills, I purchased an original vial, containing 100 2 grain pills, in the store of Mr. Theodore Cole, 409 First Avenue, New York. Each ten of these pills weighed very nearly 34 grains, and the weight of the single pills is very uniform, varying but slightly either way from 3.4 grains. The whole number of pills, (100,) yielded 148.385 grains of anhydrous alkaloid, which was found to be **pure, White Quinia**, free from other cinchona alkaloids. This amount of dry Quinia corresponds to **203.8** grains of **Sulphate of Quinia**, containing 8 molecules of water of crystallization ($2\,C_{20}\,H_{24}\,N_2\,O_2 \cdot H_2\,SO_4 + 8\,H_2\,O$); or to **201.3** grains of **Sulphate of Quinia**, containing 7½ molecules of water of crystallization ($2\,C_{20}\,H_{24}\,N_2\,O_2 \cdot H_2\,SO_4 + 7\frac{1}{2}\,H_2\,O$), which latter is, as near as possible, the formula of the commercial pure Sulphate of Quinia. The amount of Sulphate of Quinia contained in the 100 pills examined, is therefore a trifle **in excess** of the required quantity, (3.8 grains, or 1.7 grain, according to whatever formula may be adopted for the crystallized salt).

Respectfully, CHARLES RICE,
Chemist, Bellevue Hospital, N. Y."

NEW YORK, MARCH 30th, 1878.

"I have analyzed McKesson & Robbins' Gelatine-Coated 5 grs. Sulphate of Quinine Pills, from an original bottle of one hundred, and find that in two analyses of 10 pills each, the result in both cases was 51 grains of pure Sulphate of Quinine.

ED. POLENSKE, Ph. D."

NEW YORK, APRIL 13th, 1878.

"One hundred McKesson & Robbins' Gelatine-Coated 2 grs. Sulphate of Quinine Pills, analyzed by me to-day, contained 198 grains of Sulphate of Quinine. The Sulphate of Quinine obtained from these pills stood the Ether test, as laid down in the U. S. Ph.

ED. POLENSKE, Ph. D"

Circular of March 27th, 1878.

Since we changed, last fall, from Unbleached to Bleached Quinine in the manufacture of our Pills, we have heard from a large number of druggists and physicians stating that the therapeutical effects of the dark pills were better than the "bleached," dose for dose, where a tonic was indicated, and the antiperiodic effects of the former were as well marked. We made the change because we were disappointed in obtaining a uniform article of unbleached Quinine, were deceived in two shipments we received and the analyses of samples from the same package we submitted to different highly reputable chemists varied surprisingly, in fact, analysing Quinine *quantitively* is very difficult, as it depends very largely upon the different solubilities of the alkaloids in water, while the *qualitative* analysis is very simple and reliable.

The curative properties of the other alkaloids of Cinchona Barks have been well attested and the effect of the **combined alkaloids** has been repeatedly asserted to be greater than that of any **one alone.**

In view of these facts, we accordingly propose to offer Pills made of Hospital Quinine, which differs from that which has been known and understood as "unbleached," in the process of manufacture and in the proportion of Quinine. This Hospital Quinine will contain about 50 per cent. of Quinine Sulphate, and the balance, Cinchonidia Sulphate and traces of Quinidia Sulphate; the Cinchonia Sulphate, being less powerful than the other alkaloids is separated.

These pills on account of their lower price will relieve a difficulty, to which a large number of people living in malarious districts have been subjected—the inability to purchase Quinine Pills on account of price, especially when scarcity causes sudden and great advances, as at present—at the same time we believe that confidence may be felt on experiencing equal relief with similar doses.

We will continue, as now, to make our "Quinine Pills" of bleached Quinine, and the white color will readily identify them from our darker Hospital Quinines, which will be labelled "Hospital Quinine." The list of Hospital Quinine Pills we submit below is subject to same discount as our other pills, and will be reduced as soon as the market on Quinine will allow. We call special attention to our Pills of Cinchona Bark Alkaloids, which contain a definite quantity of each of the four alkaloids, one-half grain each Sulphates Quinia, Quinidia, Cinchonia and Cinchonidia.

We annex below list of our Pills of other Cinchona Alkaloids, and remain, soliciting your correspondence and valued orders,

Yours respectfully,

March 27th, 1878. McKESSON & ROBBINS.

Pills of "HOSPITAL QUININE" and the Cheaper Alkaloids.

"HOSPITAL QUININE," ¼ gr.	70	3 25
"HOSPITAL QUININE," ½ gr.	85	4 00
"HOSPITAL QUININE," 1 gr.	1 40	6 75
"HOSPITAL QUININE," 1½ grs.	1 90	9 25
"HOSPITAL QUININE," 2 grs.	2 50	12 25
"HOSPITAL QUININE," 3 grs.	3 75	18 50
"HOSPITAL QUININE," 4 grs.	4 50	22 25
"HOSPITAL QUININE," 5 grs.	6 00	29 75
Quinidia, Sulphate, 1 gr.	80	3 75
Quinidia, Sulphate, 2 grs.	1 50	7 25
Quinidia, Sulphate, 3 grs.	2 20	10 75
Chinoidine, ½ and 1 gr.	60	2 75
Chinoidine, 3 grs.	75	3 50
CINCHONA BARK ALKALOIDS.	2 00	9 75
Quiniæ Sulph., 1-2 gr. / Quinidiæ Sulph., 1-2 gr. / Cinchoniæ Sulph., 1-2 gr. / Cinchonidiæ Sulph., 1-2 gr.		
Cinchonia, Sulphate, 3 grs.	1 00	4 75
Cinchonidia, Sulphate, 1 gr.	60	2 75
Cinchonidia, Sulphate, 2 grs.	1 00	4 75
Cinchonidia, Sulphate, 3 grs.	1 50	7 25
Cinchonidia, Sulphate, 5 grs.	2 50	12 25

SEND FOR FORMULA BOOK AND PRICE LIST OF PILLS.

THE

SAINT LOUIS MEDICAL AND SURGICAL Journal.

VOL. XXXV——JULY, 1878——No. 1.

Original Contributions.

ARTICLE I.

GENESIS.—VII. By HIRAM CHRISTOPHER, M. D., of St. Louis.

The evidence that warrants the belief that this world, in all its parts and departments, had, as its author, an intelligent being, is well nigh inexhaustible. We have seen that the phenomena of living beings most unmistakably point to such an origin, and that such an hypothesis alone can account for all the facts they present. The conclusion, therefore, which they, indeed, oblige is, that the life-agent is spirit as to its nature, and supernatural as to its origin, or realm of being; that it is, indeed, that power that impregns life in all creatures of whatever grade or order; and the only power competent to originate and perfect so great and complicated a work. I shall now endeavor to show by facts furnished by one of the leading scientists of the day, that the phenomena of *death* oblige the same conclusion; and that the decomposition of organic substances, and the return of their constituent elements into the inorganic world whence they were taken by the life-agent, are effected by means which are also supernatural; and that these means are a provision especially designed for the work of decomposing organic substances, and

are essentially necessary thereto. The uniformity and universality of the process of the decomposition of organic bodies, as well as the nature of the process itself, will show that such a provision was absolutely necessary to the end in view, and proves conclusively that intelligence underlies the organic world as respects both its origin and destruction.

The temporary existence of all living beings on the earth was contemplated in their creation. All are necessarily mortal, and were designed to be so. The end or purpose contemplated by their existence, and the means by which the individuals of species are produced, required that individuals should pass away by death, and be followed by others. The nature of the work which living beings were designed to effect in the world was such, and its extent so vast, that generations of beings were required for its accomplishment; and when we contemplate what vast numbers of living beings have existed on the earth during all the geological ages of the past, and observe what a great work they have wrought on the earth, and then consider the time that was necessary for this work, we cannot fail to see that some great purpose was in view, to the accomplishment of which all these were necessary. In this great work vast have been the accumulations of the reproductive system. The land has groaned under the tread of monsters that made the earth unfit for man as a dwelling place, and the seas have trembled under the motion of the vast hordes that have swarmed their waters. The remains of many of these now lie entombed in the strata of the earth. Multitudes have come upon the earth, lived their day, wrought their work, and passed away, leaving but little trace of their existence. All these multitudes were produced by the one single system of reproduction; and great as its work has been, it is yet capable of an indefinite work in the future. There is no practical limit to its operation but the supply of inorganic material, and were this unlimited, the work of the reproductive system would be equally unlimited. But it is not difficult to conceive that a time may come when exhaustion of material will take place; for what has happened locally, may happen generally. Deserts which are now local, may ultimately extend over the whole land, and then living beings would cease to appear, because of exhaustion of inorganic material. To guard against such a contingency, and to continually afford the necessary supply in kind and quality, it was provided that living be-

ings should die, and their dead organisms decompose, that their constituent elements might return to the inorganic world, and thus preserve the required equilibrium between the organic and inorganic kingdoms. Without death the earth would soon have been overstocked, and without the decomposition of their dead bodies, and the return of their constituent elements to their original realm, dead organisms would soon have filled the earth and made the further appearance of individuals impossible. To provide against such results, destructive of the original purpose, causes of death and means of decomposition were ordained. Yet all these designs and adjustments, we are told, are the work of physical forces!

As respects the means by which the ultimate decomposition of organic substances is to be effected, physical agents have heretofore been considered as the only means necessary for this work. We have been taught by chemists to consider these agents as alone sufficient. They have taught us that, when the body is dead, inorganic chemistry takes control, and breaks up the combinations formed by vital chemistry or the vital agent, and gradually carries the organic substances back into the inorganic world. They have told us that the material elements that compose the organism of living beings are held together in their vital relation only so long as the body is living; that, so soon as it is dead, decomposition begins under the influence and action of physical agents. They supposed that the presence and action of heat and oxygen were all that were necessary. It was supposed that vital and physical chemistry were in such antagonism in the living organism; and that the elements of its structure were in such a high state of tension, that it only needed the withdrawal of life to put the constituent elements under the full control of physical agents, and by their action alone to convert organic into inorganic matter. Decomposition of organic bodies was regarded as a natural or spontaneous process, and was supposed to begin as soon as the life left the body—that it needed but this for the whole organism to fly to pieces, just as the particles of glass in a Rupert drop fly asunder when the state of tension is broken.

But recent investigations of the processes of fermentation and putrefaction, and some discoveries regarding the cause of some contagious diseases, seem to indicate that the theory as to the natural or inherent instability of organic bodies, is not true.

This supposed instability of organic structures, especially those of more complex forms, is shown by the facts revealed by these investigations to have been an incorrect conclusion from observed phenomena. Organic matter, even that of the quarternary bodies, is not nearly so instable as it was once thought to be. It would seem that these bodies do not undergo decomposition spontaneously when the life-agent has been withdrawn, on account of an inherent instability of structure, as was the view formerly entertained. Baron Liebig regarded the process as one of combustion, the oxygen of the air, aided by a proper degree of temperature, uniting with the more readily oxidizable elements of the organic body. It was with him a process of oxidation. If this view were true, it would follow that organic bodies would always decompose if contact with oxygen be allowed. But it is now known, as a result of experiment, that organic substances will remain unchanged for an indefinite time even under pure oxygen, provided all contact with dust-laden air be prevented.

Though heat was regarded by the older chemists as necessary to oxidization, as it is in almost all cases, it was considered only as an adjuvant, it being the property of oxygen to unite with substances at a certain degree of temperature, and to part from them again at a higher degree. It is known to be necessary both to the union and decomposition of substances, organic as well as inorganic, and in many cases of the latter, alone necessary. It is also necessary to the functions of life. Though living organisms live and flourish under a very low degree of temperature, as in the Arctic regions and on high mountains; yet, for the most of them, heat in a considerable degree is essential to their growth and reproduction. In winter the functions of vegetable life are suspended because of the low temperature. In the spring, when the temperature has reached the proper and necessary degree, these functions become active, and we again witness reproduction. Heat, therefore, is essential to these vital functions. Light also is necessary. But these agents are not the source of life, nor are they the vital principle. The plant was alive when these agents were inactive. All that we can say for them, therefore, is that they are necessary to the functions of life. The Siberian mammoth was entombed hundreds of thousands of years ago, in all probability, yet its flesh was as sound and sweet when the animal was disinterred as when it was entombed. The low

temperature prevented decomposition. Still, it does not follow from such facts as this that heat is the cause of decomposition, though it certainly appears so. During a battle, when men are suddenly cut down in health, and under a hot sun, they rapidly undergo decomposition. Here again it appears that heat and oxygen are the sole agents effecting decomposition; for if it were winter, with the temperature below the freezing point, there would be no decomposition. Thus it would appear as if heat alone were necessary to set in action the decomposing forces. Such is the case in part. There can be no decomposition in its absence. And neither can there be vital activity. This is an important fact, and deserves consideration. It shows that, after all, the necessity for the presence of heat in decomposition arises from the fact that it is necessary to life, that decomposition takes place because connected with some vital process or action.

Experiments have shown that the agent that effects decomposition in connection with heat, is not oxygen. As already stated, when pure air or oxygen is kept in contact with organic matter, and under an ordinary degree of temperature, no decomposition takes place. Prof. Tyndall says that he "opened a number of tubes containing infusions of flesh, fish, and vegetables, which had been hermetically sealed for over a year, and exposed for weeks to the heat of the sun of the Alps and to the warmth of a kitchen, and when opened the infusions were perfectly clear and sweet, showing no signs of decomposition." But when these infusions were exposed to the air at the ordinary temperature, it was found that they became cloudy and odorous; and then the microscope revealed the presence of great numbers of living organisms. Decomposition and putrefaction had set in. The conclusion was, therefore, natural and unavoidable, that decomposition was in some way dependent on the presence of these living organisms, and that they came from the air.

The investigations that have been made during the last two decades, of the processes of fermentation and putrefaction, have led to the discovery of some of the most important facts that the labors of scientists have ever given to the world. For a long time it had been known that fermentation was attended by the appearance of a mass of cellular substance which was observed to increase in quantity as the fermentation continued; but the phenomenon was not understood until it was discovered

that this cellular substance was really a living organism, whose increase in size or quantity was the growth of a living being. Some of the older chemists recognized these cells as a vegetable growth, but supposed that they originated spontaneously in the fluid during the fermentation. They did not even suspect that they had any agency in the process, either in originating it or in carrying it on. They regarded the fermentation as being the result of heat and oxygen—a purely physical process by physical agents, and the cell-product as an unexplained accident. What is now known to be the real cause of fermentation was never suspected by them. With them it was purely a physical process. So Regnault taught more than twenty years ago, and he was abreast of his times. He states, "If grape juice be collected in a bell glass completely filled with mercury, it will remain unchanged for several days; but if a few bubbles of oxygen or atmospheric air be introduced into the bell glass, a considerable volume of gas will be disengaged."* It was his view that oxygen occasioned the decomposition of the grape juice. He does not seem to have even suspected the true cause of decomposition or the nature of the process. Had he conducted his experiment as Prof. Tyndall would now do, he would have discovered, if not the true and real nature of the process, at least, that no gas was disengaged. There would have been no decomposition of the juice—no fermentation. The true explanation of such phenomena was reserved for a later day.

It was long since that the microscope revealed the existence of an invisible world teeming with life; of organisms whose minuteness is well nigh incredible; but it was not known until recently what part they play in the economy of nature. They seem to have been rather objects of curiosity than of affording any ground of special economic or scientific interest. But when Pasquer ended his investigations as to the cause of disease in the silk worm, a new and wide field was opened. Another world of busy workers was brought to light, workers of good and ill. Though invisible to ordinary vision, yet they are extremely numerous; though recognizable only in fluid or semi-fluid substances, yet they fill the air we breathe, as thickly as motes a sunbeam; and though almost infinitely minute in size, yet they are by no means correspondingly insignificant as to the nature

* Regnault's Chemistry, vol. 2, p. 505.

and extent of the work they do. They are powerful for good or ill. They bring both to man. They were appointed for a great and important work in the world, a work which proclaims their power and numbers. Their germs in vast numbers float unseen in our atmosphere, and hundreds crowd into a drop of an organic fluid. Their beginning was coeval with the first of earthly beings, and their work cotemporary with death among living organisms. They are the ultimate carrion eaters and scavengers of the organic world. Though their footprints are not seen in the sands of the ages, yet their remains are not absent from the strata of the earth. Their skeletons lie entomed in the crust of the earth, and to-day serve a valuable purpose in human art.* Lying beyond the boundaries of human vision, and unfit for uses which many other organisms lend to man; yet they serve him in things which lie beyond the range of the higher forms, and accomplish for him a work absolutely essential to his welfare. Their existence in the beginning of living organism on the earth was, therefore, in anticipation of wants occurring all along the ages of life on the earth, and demonstrates that a mind grasped all the phenomena of earth, and an intelligence presided over the whole, at once capable of comprehending the needs, wants and contingencies of life on the earth, and of meeting these with means perfect and adequate. The function of nutrition called for a wide field of supply, and those of growth and reproduction supplied the want; but the agency of nutrition has been found necessary to the opposite state of organic bodies—their growth and putrefaction; so that nutrition is found to be not only a process necessary to life, but also to the purpose of decay and ultimate decomposition of organized bodies.

Some late and careful experiments in regard to the processes of fermentation and putrefaction have shown that these are really and truly vital processes, and not physical, as heretofore considered—that the decomposition of organic substances takes place only in connection with nutrition, and as a consequence thereof. Two phenomena are conspicuous in these processes—phenomena readily recognized, viz: The nutrition of living organisms and the decomposition of their pabulum, and seem to place beyond question the fact that there can be no decomposition of organic substances without the concurrent nutrition of

* Lyell's Elements of Geology, p. 24.

living organisms. What the larvæ of the fly do in a dead animal, the bacteria also do. The one are visible, the other are not. The former were deposited by the fly as eggs; the latter, as germs, came from the atmosphere, the ova of former generations. Both nourish, grow, mature, and reproduce, as do all living organisms. Hence, the primary and leading functions of the organic world are nutrition, growth and reproduction. These are its primary phenomena. The phenomena of death are but the consequences or results of the phenomina of life! Is it possible, then, that phenomena so linked and dependent are but the provisions of physical agents, or of the passive forces of matter?

There is nothing peculiar or exceptional in the nutrition of microscopic organisms. If the decomposition of organic substances attends it in one instance, as there is uniformity in the laws of nature, we may be certain that it universally and invariably accompanies it. Sugar, we know, is decomposed by a ferment. The ferment is invariably a living organism. This is now regarded as an established fact. As we observe the products of fermentation to increase, we observe a corresponding growth in the organism. The two processes proceed in parallel lines. The same phenomena are observed in the changes that take place in the higher plants. In the sugar cane, maize, maple, pulpy fruits, etc., sugar subserves the purpose of nutrition at certain periods of the growth of the plant. In the early part of its growth, sugar is readily detected in the crude sap; but at the flowering period it disappears, a fact to be explained only on the supposition that it is coverted into some isomeric body, or that it was used in nutritrion, the latter more probably.*

Prof. Tyndall has shown that a fluid capable of undergoing fermentation or putrefaction, after having been properly prepared and carefully excluded from contact with dust laden air, will continue unchanged indefinitely at the temperature at which it would decompose if exposed to the air. He believes that it would never decompose. On the other hand, it is certainly true that the fluid will ferment or putrefy if it shall be subsequently

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* This fact would seem to indicate that the pabulum of plants is really organic matter, and not inorganic as generally supposed. The same is the case with the growth of a plant during the stage of germination. The inorganic substances conveyed to the leaves are there decomposed and formed into organic bodies which then become the food of the plant. The leaf is an artopoietic organ.

exposed to the air. Having demonstrated by experiment that pure oxygen, though aided by the necessary degree of heat, will not excite these processes, he concludes that these changes in organic substances are to be solely ascribed to the agency of the organisms whose presence in the fluid in large numbers, is revealed by the microscope. This conclusion was corroborated by numerous experiments variously and carefully repeated. It was found that neither fermentation nor putrefaction take place without their agency. Hence he says very confidently that "It is these organisms, and other analogous, though apparently motionless ones, which, by decomposing the milk, render it sour or putrid. They are the lactic and putrid ferments, as the yeast-plant is the alcoholic ferment of sugar. But milk may become putrid without becoming sour. Examine such milk microscopically, and you will find it swarming with the shorter organisms somtimes associated with vibrios, sometimes alone, and often manifesting a wonderful alacrity of motion. Keep these organisms and their germs out of your milk, and it will never putrefy. Expose a mutton chop to the air, and keep it moist; in summer weather it soon stinks. Place a drop of the juice of the fœtid chop under a powerful microscope; it is seen swarming with organisms resembling those in the putrid milk. These organisms which receive the common name of bacteria, are the agents of all putrefaction. Keep them and their germs from your meat, and it will remain forever sweet."*

Prof Tyndall, it would seem, believes that organic substances will not undergo decomposition except through the agency of living organisms. Whether this is true in all cases and under all circumstances when the necessary conditions are present, as in internal abscess, or senile gengrene, the professor does not state; but his language implies as much. As he is somewhat favorable to the theory of Evolution, though denying its fundamental thesis—spontaneous generation—the statement is accepted as true, that the agency of living organisms or their germs, is necessary to the decomposition of organic substances; and the fact is here employed as an *argumentem ad hominum*, without expressing any opinion as to the universality of its truth.

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* A discourse delivered before the Glasgow Science Lecture Association, Oct. 19th, 1876.

ARTICLE II.

WHAT DOCTORS OF MEDICINE HAVE ACCOMPLISHED IN LESS THAN THE PERIOD OF A SINGLE LIFE. By ROB'T. H. DALTON, M. D., of Neosho, Mo.

In the progress of time it is interesting to abstract the mind from the present and the future, in order to review and criticise the past—its doctrines, habits and peculiarities, on which are founded those of the present; for we are truly the descendants of the past, inheriting all the traits of character, modes of thought, and the very wings of genius that characterized our progenitors. As our fathers were, so are we. Nevertheless, as time has changed and the world has grown older, we have become differentiated, but still bearing the general features of the race and swayed by the same inherent motives that urged on our ancestors in the business of life and inspired them with ambition in the great battle of science. And as they were enabled, by observation and accumulated facts, to correct the errors of their predecessors and add to the general store of human knoweledge, so we have taken the crop of our inheritance from them and winnowed the wheat from the chaff; so that medicine, though not by any means in all its branches, an exact science, begins to wear the garb of positive knowledge, and stands forth, this day, as one of the greatest accomplishments of the age, by which the world is blessed and human existence rendered happy and enjoyable beyond the most sanguine anticipations of its founders.

Fifty-one years ago, I first opened my eyes on the medical profession, and began to view with the deepest interest the great struggle then going on to wrest it from the withering grasp of empericism, which had held it so long. Here at home, I saw Physick, Mott, Warren, Chapman, Caldwell, Drake, Dudley, Eberly, Dunglison, Dickson, Gibson, Horner, Hare, Dawes, Meigs, Hodge, Jackson, McClellan, and a few others, standing in advance of the profession to lead on and guide the host of ambitious aspirants for fame who were then beginning to crowd the halls of medical science. Some of these had been taught by Hunter and Abernathy, and some again had imbibed the speculative doctrine of Cullen and Brown; the former practical and

didactic in their mode of teaching, the latter speculative, as their masters had been, and embellishing their lectures with all the art of elocution to interest and chain the attention of their youthful auditors. It was fortunate for the profession in America, at that time, that anatomy had already been thoroughly studied and mapped out as the foundation of medicine, affording a rational basis for the development of physiology, which was destined soon to enlighten the way of investigation and lead to a more rational system of therapeutics.

Looking beyond the Great Waters to the East, the birth land of science, the prospect was still more cheering. The extreme liberality of the French government had enabled the physicians of France to take the lead of all others, at that time, and all eyes were turned to Paris in wonder and astonishment at the progress of medical art and science, as well as all other intellectual pursuits Ambitious young graduates from America and other countries were crowding the lecture-rooms of Bichat, Magendie, Blumenbach, Richerond, Beclard, Laënnec, Louis, Broussais, Dessault, Dupuytren, Larrey, Lallemand, Recamier, Velpeau, Colombat, Cruveilhier, young Trousseau, and others, to witness their exploits and drink in the wisdom of their teachings; and although the French mind of that period was highly metaphysical, being stamped with the genius of Leibnitz and DesCartes, yet the devotees of medical science in France were the first to escape from the toils of dogmatism and search for truth by means of actual experiment and observation. Among the practitioners of France autopsical researches were the order of the day, nor was the public mind averse to the practice. Hence pathological anatomy soon became a science to serve as a surer basis of therapeutics; and then, for the first time since the days of Hippocrates, medicine seemed to take a new departure. The microscope which for a long time had been employed merely to gratify philosophical curiosty, was brought into use for the purpose of exploring the ultimate qualities of tissue-matter and illustrating the changes in living structures by pathological conditions. Diagnosis at the bedside by physical explorations, as true as the art of measuring tape by a line, began to take the place of that variable and uncertain mode of all preceding time, by which the practitioner relied on inference and intuition alone. And all the other arts were subordinated to the grand object of promoting and liberalizing the healing art, then so pre-

eminent in France. Instruments and mechanical arrangements of special adaptability were invented to take the place of the rude contrivances of former times, so that surgery, not long ago in the keeping of butchers and barbers, leaped at once to the highest grade of our professson. And only a half a century before this remarkable period, Smellie and William Hunter had rescued midwifery from the exclusive possession of old women and degraded men, and laid a foundation to bear the brilliant superstructure soon reared by Nagel and Denman. Yet its compatibility with the dignity of the profession was scarcely recognized till it had received the scientific touch of Baudelocque and Recamier, who were flonrishing in the early part of the nineteenth century. The latter had invented a speculum, and began to revive the practice of looking into the interior lesions of the genital organs; and then it was that gynæcology had its beginning as an honored branch of the medical profession. I have that speculum now in my possession—old and tarnished, but as nearly adapted to the requirements of practical gynæcology as those of later inventions, excepting that of Sims, which is certainly almost perfect.

In the meantime Great Britain had caught the inspiration, and London, Dublin and Edinburgh, being recognized as centers for medical lore, claimed the attention of many visitors from America, who, after returning home together with those who had gone to Paris, became distinguished leaders of the profession and stepped at once into the honorable positions formerly occupied by their masters, assuming the lead in expounding the new doctrines, founded for the first time in the history of the world, on that positive mode of deduction, which is drawn from the direct observations of visible, tangible facts. Hospitals, almshouses, laboratories, and private rooms in all the large cities of the Union now became the busy scenes of autopsies, vivisections and analytical observations to extort from Nature her long-hidden secrets. The physical conditions of disease were exposed to view; physiological functions were examined under the new light, and they were now understood for the first time since the creation of man; and all living and inorganic matter was forced to show its constituents and yield to observation, as we look upon trees of the forest or handle the implements of every-day life. Clinical practice was changed; hopeless invalids were restored to health and the joys of life; decrepitude was stripped of its

withering garb; the most painful surgical operations were performed without consciousness or suffering; the travails of parturition were mitigated, if not abolished; hypodermic medication was, in a great measure, substituted for the inhibition of nauseous drugs; natural deformities ceased to disfigure the noblest specimen of God's creation; sanitary science, with hygienic regulations and improved knowledge of dietetics, greatly extended the limit of human life; and millions now are living and enjoying all the blessings of life, who, divested of these improvements and discoveries which are due to the medical profession alone, would be now mouldering in the bosom of Mother Earth. And all this is a bare allusion to the wonderful achievements of the medical profession in my day. Surely the time is not far distant when its superior claims will be amply acknowledged by the world.

But let us glance at the mode of practice *then* and *now*. How wonderful the difference! *Then* pathology was speculation; *now*, it is positive—perhaps too much so. *Then* diagosis was wrought out by a process of metaphysical reasoning, hence doubtful; *now* it is reached, or it is generally proved, by physical means scarcely mistakable. True to the ancient mode of reasoning, physicians of that day were disposed to regard disease as a floating entity to be eliminated by specific medication or revulsion; and they were divided into two parties, fierce and hostile—Solidists and humoral Pathologists; one neutralizing disease by specifics, the other throwing it off by revulsion and counter irritation, while a fraction of the two combined both methods, deeming themselves the only true and philosophical disciples of Hippocrates, and evidently basing their practice on the fugitive principle of "*post hoc, ergo propter hoc.*" In febrile and inflammatory diseases their theory and practice were founded on *phlogiston*, a speculative principle derived from chemistry, which was then but a groping science; hence *anti-phlogistics*, a term yet in use by careless writers. Indeed, the whole pathology of diseases was established on the broad and indefinite basis of phlogistic force, and classified as *sthenic* or *asthenic*, according to the appreciated degree of that mythical power. The war so long and fiercely waged between the two great champions in medicine, Cullen and Brown, of Scotland, left a schism in the profession not yet healed, and the conflict between *stimulants* and *anti-phlogistics* fell to us, in that day, as an inheri-

tance. The distinct and forcible aphorisms of Brown had many earnest advocates among us at that time, but the magisterial lessons of Cullen were taught as the *ne plus ultra* of practical medicine. Yet there was a very large class, who, appreciating the unstable foundation of medicine, clung to the precepts of experience and common observation. Dr. Rush had lately been an example of these, though he had been regarded as a disciple of Brown. But whatever theory was indulged, the practice was universally similar. If a disease was designated as sthenic, venesection was the sheet-anchor, and the vital fluid was poured out, sometimes even to *deliquium animi*, while starvation was strictly enjoined. On the other hand, if asthenic, the most powerful stimulants and diaphoretics were employed, with all the nourishment the patient could bear; and, strange to say, recoveries then were almost as frequent as they are now; but surely egregious blunders were sometimes committed. On the general principles of "*ubi irritatio, ibi fluxus*," blood-letting, either by venesection or cupping, was resorted to for all complaints accompanied with pain, not understanding that a very large class of painful diseases of the nervous tissue are not subject to capillary congestion and are best treated by simple nervine remedies. In fact the general principles of practice in nervous and inflammatory diseases were almost precisely the same; and although the reflex phenomena of the nervous system had been discovered by Astruc as far back as the middle of the last century, offering a clear basis for a separate pathology and practice, yet the fact was never utilized till it was forced upon the profession by the lucid experiments of Marshall Hall, Brown-Sequard, and their associates within the present century and in my day; just as anæsthesia, announced long ago by Sir Humphrey Davy and indicated as a means of lessening the horror of surgical operations, lay dormant and unappreciated till the blaze of general science had made it so conspicuous that the reckless dentist, Morton, who was by no means a scientist, and was probably acuated by avarice alone, forced it into use and general acceptance only about thirty years ago.

And about fifty years ago, this "anti-phlogistic" principle was much corroborated by the impetus given the use of *cathartics* by the publication of that interesting and remarkable little book on "Purgatives," by Prof. Hamilton, a distinguished teacher of therapeutics at Edinburgh. Few books published in my day on

methods of practice have made a deeper impression on practitioners of medicine. The practice was founded on the hypothesis of hepatic derangement in febrile and other diseases involving the secretions, and it was supposed that depletion directly from the liver and portal circle by purgatives was the speediest and most rational mode of restoration to healthy action. And as calomel had been long known to stimulate the secretion of bile, was generally adopted, alone or in combination with other cathartic medicines, as the most certain means of fulfilling the indication. The result of this practice was found to be favorable to the hypothesis; hence a large majority of practitioners soon fell into the indiscriminate use of mercurial cathartics, and many of them carried it to an alarming extent, exhausting their patients and producing frightful salivations. Nothing was more common than to see patients lying on their sides, with their painful swollen mouths resting on folded towels to absorb the pints or quarts of saliva that flowed out in a day. Some of the popular lecturers of that period must bear the principle odium of this great abuse; and among these no one stands more conspicuous than Prof. Cook of the Transylvania University, who, in 1828 or '29, and for several years afterwards, promulgated and urged with all his eloquence before large classes of Western and Southern students, the practice of giving and repeating drachm doses of calomel in fever, and foisted on the profession, throughout the Western and Southern states of America, his celebrated hydrogogue pills, (calomel, aloes, rhubarb, and scammany) which maintained its popularity for twenty-five years. How far in the profession this barbarous mania extended, I am not aware; but I am under the impression that it reached every part of the United States, and was probably recognized by some of our more cautious brethren of Europe. But as every "evil has its cure," this proved not to be an exception, though it lived and prospered in its mad career for several years.

But witnessing the wide-spread devastation committed by the practice, the people became alarmed, while the most intelligent practitioners of the whole country began to protest with all their might against it. And then it was that mercury, a most valuable remedy, fell into the deepest odium, not only among the people, but a majority of the medical profession; so that less efficacious substitutes were sought out and employed by regular physicians, while Homœopaths, Eclectics, and steam doc-

tors, sprang up in the cities and all parts of the country to intensify the alarm of the people and to absorb the better part of practice. Many of us, however, who were converts to the doctrine of Hamilton, but repudiated the extravagant use of mercury, continued to employ it as we had ever done, though, to save reputation, we were compelled very often to prescribe it in disguise; and to this day, few physicians will venture to send out a prescription containing *calomel* without the Latin name, "Hydrarg," and that too written in a very bad hand.

But let us return to the legitimate progress of medicine. We have been led off by an episode of the American profession, interesting only as it shows the great error of confiding authority to the hand of incompetent teachers of youth who swarm out in every generation to take the place of their retiring predecessors, disseminating broadcast their doctrines, true or false, harmless or pernicious, as they are derived from authoritative masters; and instructing, in as much as it warns us to beware of all doctrines, however plausible, which rest on hypothesis alone.

We have already alluded to various improvements and discoveries which have facilitated the progress of medicine within the recollection of our elder practitioners; but let us not forget that the microscope has not been idle. It has been looking down deeper and deeper, till it has reached, almost it not quite, the ultimate cell of animal organization, and brought into view its differentiations and multifarious connections in the development of physiologico-anatomical structures, as well as abnormal products under the influence of pathological conditions. And while engaged in these observations, it has, for the first time, witnessed the genesis, the *beginnings* of animal life, and scanned in daylight the habits and sportings of ultimate infinitesimal beings. Virchow, Tyndall and Bastian have lived and taught, while Spencer, Bain, Huxley, Beale, and Lister, seizing their thunder, have electrified the world. Zymosis has been revealed, and we now understand how a very large class of human maladies is generated and multiplied, as well as the means of their control and prevention. And all this is due to the magic power of the microscope. In all departments of practice for the relief of human suffering and disability, adequate means of cure have been discovered; and now the man who lives according to the recognized laws of health, or when maimed by accident, submits to the care of a competent surgeon, may expect to enjoy the

blessings of life till he becomes an octogenarian. And this is not all.

Sanitary science, in the last few years, has grown to be one of the greatest blessings of the age, as it guards individuals and whole communities from the assailment of zymotic and epidemical diseases which formerly decimated the people. Even cruel, heartless, relentless war has been divested of its terrors by the skill and ingenuity of our profession; for when, in the conflict of arms—the play of missiles of death and destruction—a soldier is maimed and falls, he knows that a friend is standing near behind to bear him away, by easy transportation, to a soft and comfortable hospital couch, where his wounds will be healed and every tender care bestowed upon him that a dear mother could render.

But it would seem that our mothers, sisters and daughters are under special obligations to our profession; for, whereas, fifty years ago, they were doomed to very many incurable diseases and forced to drag out a miserable existence, oftentimes afflicted with loathsome complaints resulting from injuries peculiar to their sex, now, while they are unconscious of pain and sleeping in the transport of pleasant dreams, the gynæcologist, only yesterday known in the world, exposes to view their inmost parts and carves away the offending mass, or unites and heals the lacerated tissues; and then he sends them forth in health once more to mingle with and bless society with their charms again. Recamier, Velpeau, Baudelocque, Ramsbotham, Dewees, Meigs, Hodge, Sir J. Y. Simpson, and many others, have lived and passed away after contributing much to the comfort and security of these tender objects of man's affection; but let us not fail to acknowledge the superior claims of Henry Bennet, of England, and Sims, Emmet, and Thomas, of our own country, who, though now living and toiling in behalf of woman, have already laid the foundation of enduring fame.

Under the stimulus of all these multiplied improvements and the augmented duties and responsibilities of the profession arising therefrom, the whole constitution of medicine seems to have undergone a radical change, the field of labor being so enlarged that no one man can occupy the whole, or be proficient at the same time in every part. Hence specialism has made its appearance; and while it relieves the general practitioner from the

necessity of often groping in the dark, the concentration of educated minds on the separate branches has served to advance our knowledge in a remarkable degree, and afforded the ready means of supplying every demand upon the profession. To many of us its advent was viewed with distrust, and it was regarded only as a plausible mode of charlatanry. But when we reflect upon the numerous pathological phases incident to special organs, and the fact that they cannot be understood and retained without long and constant application—much more than a general practitioner can easily accomplish in the present enlarged field of labor; and when we consider that all recognized specialists have graduated in every branch of the profession, it is hard to say that we should not admit the necessity of specialism and take its practitioners by the hand as worthy co-laborers. But space for an article like this will not permit the protraction of the interesting review.

And now we have looked back and beheld the progress of medicine during the manhood and labors of an individual yet living and active, and observed that improvements, as the time advanced, seemed to multiply in geometrical progression, till its constitution and all its methods have been revolutionized and placed on a rational basis; and now, when we turn and look forward to the future, guided by observation of the past, a prophetic vision illumines the mind, and we rejoice in beholding the exalted position the medical profession is destined to occupy in the estimation of the world within the period of another generation. So clear is the prospect, so positive the anticipation, that an aged practitioner who has toiled long, but reaped inadequate reward, may well feel that he is compensated by the pleasing reflection that his life has been associated with the devotees of medicine. He may have chafed and sorrowed under the neglect and ingratitude of unfaithful patrons, and cursed the day when he first resolved to link his fate with a calling so treacherous; but now he may glory in the decision of his youth that joined him in the ranks of a profession so worthy. The time may have been when, fretting under these sad reflections, he has exclaimed, "Oh, ungrateful world! cease to undervalue these practical self-sacrificing philanthropists and boast no more of your liberal professions! for here is one that receives you in tender hands when you first merged into life, shielding you from injury and all the

occult causes of disease and suffering throughout your minor years, and when you engaged in the rough and trying scenes of manhood, points out the way of safety and highest enjoyment, that you may span over a perfect life and fulfill all the requirements of your being;" but now he may repine no more.

Article III.

The Use of Cold Water in the Treatment of Fevers. (Medical Reports by James Currie, M. D., F. R. S., etc. Braithwaite's Retrospect. Niemeyer's Practice. Ziemssen's Cyclopædia.) A Review and Analysis. By J. C. Darby, M. D., of Mt. Sterling, Kentucky.

The history of medicine presents no fact so singular as that of the use of water in the cure of diseases. Dr. Currie says that its uses as a remedial agent had been so entirely forgotten, that he claims his method of using it to be a discovery.

He took particular pains to introduce his book to the medical profession. He sent copies of the first edition, published in 1797, to the medical schools in Ireland, Scotland and England, and gave copies to many surgeons of the British army and navy.

These gentlemen, together, visited all parts of the habitable globe. The practice was a success wherever tried, whether in the north of Scotland or within the tropics, and yet Currie's method was again soon forgotten.

I have been practicing medicine over forty-one years, and my attention and that of a large medical class was called to Dr. Currie's book, in an introductory lecture delivered by Dr. John E. Cooke, at Lexington, Ky., November, 1835. Dr. Cooke had adopted Currie's method in 1804, at Winchester, Va., and yet I have not met with half a dozen physicians who ever saw a copy of Dr. Currie's book; and, until within the last few years, as many more who knew anything at all about his method of using cold water. The practice came back by accident, when

Preisnitz introduced his hydropathic system. I will give one of the accidental cases as an illustration. I could give several score of them :

A distinguished lawyer told me that he had a severe attack of miasmatic fever while stopping at the residence of a friend near Natchez, Mississippi.

Two or three of the best physicians of that city were attending on him. After he had been ill ten days or two weeks, I forget which, he overheard them say in an adjoining room that he would not live over twenty-four hours.

They had not allowed him a drop of cold water to drink, nor had it been applied to his body in any manner. That night his nurse went to sleep. He got out of bed the best he could and crawled to a large spring in the yard. He drank a very large quantity of water, and then got into the spring and remained there until he felt comfortable. He then crawled back to bed and immediately went to sleep. The next morning he was convalescent.

I will give one other case, where the cold water was only drank : A gentleman told me that he was called to sit up with a young man in Garrard county, Ky., who was very low with fever. He sat up with the patient until 2 o'clock A.M. As soon as everybody else had left the room the patient asked his nurse to go to the spring and bring a pail of fresh water. At 2 o'clock, when the other nurse was called, the first one said to the second, "If he wants any more water there is a fresh pail of it in the porch." The reply was, "You have not given him cold water? his physicians positively forbid it." The answer was, "I did not know that; he has drank over a gallon." The next morning this patient was convalescent.

I could give a hundred cases, where cold water was only drank in this secret manner, which were told to me either by the individuals who had been cured by *drinking* cold water, or who had been witnesses to the fact. I will make the application of these facts before I conclude. Dr. Currie's method is now referred to by many of the first physicians, both in Europe and the United States, but his method is not followed. I will now give it, and then the methods now practiced in Europe. I copy from a reprint of the fourth London edition of his work, published at Philadelphia, in 1808. (See page 27, etc.) "The Manner in which the Affusion of Cold Water ought to be used

in Fever." It will be proper to premise that when the term fever is used in the present work without any adjunctive, it is the low contagious fever that is meant.

This is the typhus of Dr. Cullen; the contagious fever of Dr. Lind; the *febris inirritativa* of Dr. Darwin. In popular language, it is generally called the nervous fever, and where particular symptoms appear, the putrid fever. This is the common fever in England. Whoever has watched the progress of fever must have observed the justness of the observation made by Cullen, Vogel, DeHaen and others, that even those *genera* which which are denominated continued, are not strictly such, but have pretty regular and distinct exacerbations and remissions in each diurnal period. In this space of time, Dr. Cullen contends that an attentive observer may commonly distinguish two separate paroxysms. My observations do not enable me to confirm his position in its full extent, but one exacerbation and one remission in the twenty-four hours seem generally observable. The exacerbation usually occurs in afternoon or evening; the remission towards morning.

If the heat of the patient be at such times taken by the thermometer, it will be found to have risen one or two degrees in the central parts of the body above the average heat of the fever, and still more on the extremities. The safest and most advantageous time for using the aspersion or affusion of cold water, is when the exacerbation is at its height, or immediately after its declination has begun; and this has led me almost always to direct it to be employed from six to nine in the evening, but it may be safely used at any time of the day *when there is no sense of chilliness present; when the heat of the surface is steadily above what is natural, and when there is no general or profuse sensible perspiration.* These particulars are of the utmost importance.

I.—If the affusion of cold water on the surface of the body be used during the cold stage of the paroxysm of fever, the respiration is nearly suspended; the pulse becomes fluttering, feeble and of an incalculable frequency; the surface and extremities become doubly cold and shriveled, and the patient seems to struggle with the pangs of instant dissolution.

I have no doubt from what I have observed, that in such circumstances the repeated affusion of a few buckets of cold water would extinguish life. This remedy should therefore never be

used when any considerable sense of chilliness is present, even though the thermometer applied to the trunk of the body should indicate a degree of heat greater than usual.

II.—Neither ought it to be used when the heat, measured by the thermometer, is less than or even equal to the natural heat, though the patient should feel no degree of chilliness.

III.—It is also necessary to abstain from the use of this remedy when the body is under profuse, sensible perspiration, and this caution is more important in proportion to the continuance of this perspiration. Sweating is always a cooling process in itself, but in bed it is often prolonged by artificial means; the body is prevented from cooling under it to the natural degree, by the load of heated clothes. When the heat has been thus artificially kept up, a practitioner, judging by the information of his thermometer only, may be led into error.

Under these restrictions the cold affusion may be used at any period of fever; but its effects will be more salutary in proportion as it is used more early. When employed in the advanced stages of fever, some cordial should be given immediately after it, and the best is warm wine.

CASE I.—A nurse in the fever ward of the Infirmary was seized with violent rigors, chilliness and wandering pains, succeeded by great heat, thirst and headache. Sixteen hours after the first attack, her heat at the axilla was 103° F., her pulse 112 in the minute, and strong; her thirst great, her tongue furred, and her skin dry.

Five gallons of salt water, of the temperature of 44°, were poured over her naked body, at 5 o'clock in the afternoon; and after being hastily dried with towels, she was replaced in bed. When the agitation and sobbing had subsided, her pulse was found to beat at the rate of 96 strokes in the minute, and in half an hour afterwards it had fallen to 80. The heat was reduced to 98° by the affusion, and half an hour afterwards it remained stationary. The sense of heat and headache were gone, and thirst nearly gone. Six hours afterwards she was found perfectly free from fever, but a good deal of debility remained.

For several days the cold affusion was repeated at the same hour of the day as at first; the fever never returned.

The bath was repeated, in the second case, four times; in the third case, six times; in the fourth case, four times; in the fifth case, three times; in the sixth case, three times; in the seventh case, nine times.

Dr. Currie gives an account of the fever that prevailed in the 30th regiment at Liverpool, in 1792. It extended to fifty-eight persons, in all of which thirty-two went through the regular course of the fever, and in twenty-six the disease seemed to be cut short by the cold affusion; of thirty-two already mentioned, two died. These two cases were men so debilitated by previous infirmities, that it was not thought advisable to use the cold affusion at all. In some of the cases reported, the cold affusion was not used until the ninth day of the fever. In a majority of the cases, it was applied only once in twenty-four hours. It was not used oftener than twice a day in any case. It was always applied at the exacerbation of the fever. "The cold affusion may also be employed with success in intermittent fevers, as I have found by repeated trials." "Though the patients were often startled at the first proposal of dashing the cold water over them, yet, after one trial, there was seldom any difficulty in persuading them to have it repeated. The effects were, in general, highly grateful and refreshing to their sensations. The extinction or abatement of fever was commonly followed by more or less diaphoresis, and this again by refreshing sleep." "At first I used fresh water; afterwards fresh water mixed with vinegar; and lastly, a saturated solution of sea salt in water. In the instance of the 30th regiment, I used the water of the river, which contains about a thirty-third part of salt, as has been already mentioned, and this I commonly employ in private practice. I was led to prefer salt water to fresh on account of the stimulating effect of sea-salt on the vessels of the skin, by which I apprehend the debilitating action of cold is prevented. Salt water, either for the purpose of immersion or affusion, is more grateful to the patient than fresh water, and it is well known that it may be applied to the surface for a length of time, with much less hazard. Persons immersed in sea water, and especially in saturated brine, for some time together, preserve the lustre of the eye and the ruddiness of the cheek longer than those in fresh water, of an equal temperature, and such persons exhibit the vital reaction stronger when removed from it."

The heat was always tested by the thermometer placed under

the tongue or in the axilla, and the cold affusion was never applied unless the heat was above the standard of health, and not in a single case reported unless the temperature was 101° F., or higher. The affusion was made by dashing bucketsful of cold salt water over the patient in quick succession; and the patient was quickly rubbed dry, and put in bed.

DRINKING COLD WATER.—"The effects of cold water as a drink in fevers, I was naturally led to examine by my experience of its effects as an external application. I have made this examination with the thermometer in my hand, and with all the attention in my power; and the following results, which will save the reader the fatigue of reading the particulars of various cases and experiments, seem to me to contain all the information necessary to direct our practice: Cold water is not to be used as a drink in the cold stage of the paroxysm of fever, however urgent the thirst. If the thirst is gratified in the cold stage of the paroxysm, it ought to be with warm liquids. When the hot stage is fairly formed, and the surface is dry and burning, cold water may be drank with the utmost freedom. Frequent draughts of cold liquids at this period are highly grateful. They generally diminish the heat of the surface several degrees, and they lesson the frequency of the pulse. When they are attended with these salutary effects, sensible perspiration and sleep commonly follow.

Throughout the hot stage of the paroxysm, cold water may be safely drank, and more freely in proportion as the heat is further advanced above the natural standard. It may even be drank in the beginning of the sweating stage, though more sparingly. Its cautious use at this time will promote the flow of sensible perspiration, which, after it has commenced, seems often to be retarded by a fresh increase of animal heat. A draught of water taken under such circumstances will often reduce the heat to the standard at which perspiration flows more freely, and thus bring the paroxysm to a speedier issue."

"Among the ancients the internal use of cold water in ardent fevers is recommended by Hippocrates, Galen, Celsus, and most of the celebrated physicians whose works have come down to us." Among the moderns, that extraordinary man, Cardanus, wrote a dissertation in its favor, and to pass over a multitude of inferior names, Hoffman, though with some restrictions, recom-

mends it, not in fevers only, but in various other diseases. In our own country it was proposed as an almost universal remedy by Smith, and a treatise has been written on it under the title of *Febrifugum Magnum*, by Dr. Hancock.

In Spain and Italy the use of cold water in fevers, obtained in the beginning of this century a greater and more general reputation than in any other countries in Europe, and at one time seems to have superceded all other diet, as well as medicine. This treatment was celebrated under the title of *Diæta Aquæ*."

This practice was opposed by the celebrated Boerhaave. And yet Dr. Edward H. Clark, in his "Century of American Medicine," begins his article in the words which immediately follow: "When Boerhaave, the most accomplished and celebrated physician of the eighteenth century died, he left behind him an elegant volume, the title page of which declared that it contained all the secrets of medicine. On opening the volume every page, except one, was blank. On that one was written, 'keep the head cool, the feet warm, and the bowels open.'"
"This legacy of Boerhaave to suffering humanity, typified, not inaptly or unjustly, the acquirements, not of medical science, but of medical art at the close of the eighteenth century."

The *American Journal of the Medical Sciences* contains an article of twenty-two pages entitled, "A Century of American Medicine," and is devoted to a discussion of the question, as to whether Drs. Morton, Wells or Jackson discovered modern anæsthesia. While I admit the inestimable value of chloroform and ether in the practice of surgery and obstetrics, it must be admitted by everyone who will allow himself to think, that one thousand, if not ten thousand patients are comforted and benefitted by a free drink of cold water, to one single case where the use of chloroform or ether is admissible. The same is true to a less extent as to the application of cold water to the bodies of fever patients, according to Currie's method, or some other method.

But when a Boston physician, writing in 1876, was ignorant of the fact that such a school as the Medical Department Transylvania University ever existed, or that there was ever a medical school west of the Alleghany mountains, it is not to be wondered at that he never knew that such a man as James Currie ever lived.

Thomas Jefferson said that he had lived long enough to out-

.ive three different medical theories. I say that the human family will not live long enough to outlive the doctrine of Currie and his illustrious predecessors, when correctly and fully understood. I will now briefly refer to the other methods. In his article, on Typhoid Fever, Niemeyer says, "As often as the temperature rises about 104° the patient is placed in a bath, whose temperature is above ten degrees below that of his body, or about 94°. While the body and limbs are gently rubbed, we add cold water gradually till the temperature of the bath is reduced to about 68°. The patient is to remain about twenty or thirty minutes in the bath, till he is slightly chilled, and then to be placed quickly in a warm bed. At first, four or five baths are necessary, subsequently two or three."

Dr. Brand's method, as practiced at Stettin: Dr. Brand endeavors to maintain the temperature of the body below fever heat; at the beginning of the disease; and at the first or beginning of the second week the patient is to be placed up to his neck in a bath at the temperature of 68°F. and at once cold water—43° to 47°F.—is poured over his head; an important point, especially, when cerebral symptoms are present. The following days, when doubtless the nervous system will be excited, water at the temperature of the bath will suffice for the douche. The douche should be continued during a couple of minutes; the assistant will afterwards rub and shampoo under the water the limbs of the patient during some three or four minutes; the patient is then be to left quiet. By that time a transformation can already be observed in him. He was, perhaps, unconscious when placed in the bath; he now begins to complain, the tongue gets moist, the face assumes a more natural appearance, and the previous drowsy, stupid look gives way to an expression of astonishment and fear; after the patient has been some eight minutes in the bath, he is seized with a violent rigor; the teeth chatter, he pants for breath, and a violent and repeated fit of coughing are followed by the expectoration of thick bronchial mucus. Frequently there is an involuntary stool. The patient by this time feels anxious, and endeavors to get out of the bath, but the physician must here more than remember Dr. Brand's aphorism: "The patient will shiver and chatter his teeth, but he must remain fifteen minutes in the bath." If the rigor appears early, the bath should last only fifteen minutes, and somewhat longer should the shivering appear later. Before removing the patient

from the bath, the head-douche should be repeated. Taken out of the bath the patient can be supported by the assistant; he trembles with cold; his skin marbled, shaking like a leaf beaten by a strong wind. He is at once carried to his bed, and his shirt should be put on without previously wiping him, a single sheet should be thrown over in summer, or a light blanket in winter. Next a cupful of tepid broth should be given to him, followed by a mouthful of good old wine; he is then to be left perfectly quiet. The shivering will last from twenty minutes to nearly an hour. The cold baths are repeated every third hour, day and night, until the temperature in the rectum measures only 101° Fah. Dr. Brand applies his method to all cases, and during all the stages of the disease. Such is Dr. Brand's method, and the results obtained are excellent.

Dr. Glenard's opinion is the following:— "You will not find in the five or six thousand cases of typhoid fever treated by this method one single unsuccess among those which have been submitted to it since the beginning of the disease." To insure success Brand's method should be rigorously applied from the beginning of the disease; sometimes the treatment will require from 50 to 200 cold baths. The duration of the disease is not lessened by this treatment; convalesence does not begin before the twenty-first day, it is, however, shorter and easier."

Liebermeister's method:— "The appearance of Juergensen's work, in which the results achieved at Kiel were set forth in an impartial and strictly scientific manner, marked an epoch in the history of the treatment of typhoid fever. It appeared from this work that if the energetical withdrawal of heat from the body was to be followed by any marked result, it must be repeated as often as the temperature of the body rose above a certain point."

"E. Brand, in Stettin, was about the only man who used cold-water treatment with the proper degree of system and vigor."

Liebermeister's method does not differ materially from that of E. Brand. He says: "As a rule in somewhat severe cases I have the temperature taken every two hours, day and night. Whenever the tempenature in the rectum reaches 103°, or in the axilla 102.2°, a cold bath is given."

ARTICLE IV.

ULCERATION OF THE PROSTATE GLAND. By H. MUDD, M. D., of St. Louis.

In May, 1876, at the City Hospital, I performed lithotomy on Joseph Battig, aged 58 years, and removed two flattened, disc-shaped phosphated calculi. They were removed by the lateral incision.

The history of the patient prior to and since the operation, is one of interest. He had suffered for many years with stricture, the result of gonorrhœa. In 1872, Dr. Morgan, then Resident Physician of the City Hospital, divulsed his stricture giving great relief to patient.

During 1875 and 1876, he suffered much with symptoms of stone. At the time of the lithotomy he was much emaciated and worn. There were present at the time of the operation two strictures which were ruptured by Holt's divulsor just previous to the introduction of the staff for lithotomy. The relief from divulsion and lithotomy was very great. No fever followed the operation, and the wound in the perineum closed on the 11th day.

Symptoms of irritation of the bladder soon appeared. The urine became loaded with mucus mixed with blood, and in a few weeks after the wound had closed, phosphatic gravel passed with the urine. The cystitis was well marked, and as severe, seemingly, as before the operation, except that the pain was much less. The cystitis was carefully treated with rest, alkalies, anodynes and tonics, together with washings of the bladder with anodyne, antiseptic and stimulating lotions, by Dr. T. B. Taylor, assistant physician, with the advice and assistance of Dr. D. V. Dean, Resident Physician at City Hospital. When syringing the bladder, we used at first a large catheter, but the passage through the prostatic urethra was so excessively tender that we deemed it prudent to use a small sized, flexible catheter.

He retained his urine and passed it at will during the first month or two following the operation, but with the advance of the disease, his control over micturition diminished and it finally

dribbled constantly from him—true incontinence of urine—for it came from an empty bladder. This cystitis or ulceration of prostate did not develop as a result of the recontraction of the stricture.

After long and persistent effort it became evident that immediate relief must be obtained to restore the exhausted vitality of the old man. After consultation it was deemed best to make a free opening into the bladder, in order to give it more perfect rest and free drainage.

On the 21st of June, 1877, with the approval of, and upon invitation from Dr. Dean, Resident Physician, I, after passing the staff easily into the bladder, again made a lateral incision into the bladder. Upon introducing the finger the prostate was found to have been destroyed by ulceration—an excavation occupying its site.

The opening was kept free by drainage tube, and the cut allowed to heal around it. Improvement in general condition became at once evident; his suffering diminished and the urine improved very much in quality.

In August he had a marked cellulitis of scrotum which subsided after free incisions. This inflammation was produced, I think, by the irritation of the skin, caused by urine, and not by infiltration of connective tissue.

NOV. 12TH, 1877.—The end of a No. 12 soft metal catheter with rubber tubing on the free end serves as a drainage tube. The urine as it flows from the catheter appears clear and has no offensive smell.

NOV. 24TH, 1877.—Dr. M. Hayward Post, assistant physician at City Hospital, made an examination of his urine and reports that it has a sp. grav., 1025, alkaline reaction, a small amount of mucous with a trace of albumen. There is also a sediment of triple phosphates.

APRIL 27TH, '78.—Patient wears a urinal into which the drainage tube opens. He works about the garden enough to be interested in it, and is comparatively comfortable.

JUNE 19TH, '78.—Upon visiting the Hospital to-day Dr. Dean tells me that in May a vesico-rectal fistula was formed, and that at the present time a large portion of the fluid fæces passes off

with the urine. The fistulous opening between the rectum and bladder is situated high up on the posterior wall of the bladder, and it seems very probable that it was produced by the end of the metal catheter, which he has been permitted to use and which has been through his own obstinancy pushed far up into the bladder.

Thus far the fæcal discharge through his bladder does not seem to have produced much irritation. The fistula has existed for a month.

It is rare to have ulceration of the prostate except as a secondary disease. Here we had added to long persistent stricture which had probably dilated and softened the prostatic urethra, calculi, which by mechanical effect had injured the prostate. The abrasion or ulceration was probably present at the time the stones were removed, but hardship and age had so exhausted the vitality, that removal of the cause was no longer sufficient to insure recovery. Waste was more rapid than repair, and nutrition was not even sufficient to arrest ulceration of an organ which is not inclined to ulcerative destruction, and a total destruction of the gland was the result. During the year succeeding the removal of the calculi, every condition favoring the formation of phosphatic calculi was present, except that of obstructed outflow, and yet none developed.

I saw in 1876 a man aged 43, a patient of Dr. Hodgen, in which there was tubercular ulceration of the prostate.

Irritation of prostatic urethra was the first evidence of failing health, and persisted until death, which occurred four years after the disease was first manifested. No other evidence of the constitutional character of the disease was present until a month or two before death, when the lungs became rapidly infiltrated by miliary tubercles. Upon post mortem examination the prostate was found to have been destroyed. There was cheesy deposit in right ureter near the groin, and in epididymus of right testicle; lungs were filled with miliary tubercles; kidneys healthy.

In the tubercular subject there may have been a number of small abscesses, opening one into the other, with ultimate destruction of the gland by ulcerative process thus established; but in the other case, it is very probable, that it was throughout ulcerative in character, induced by stricture and stone in a man advanced in years, and with nutrition impaired.

Proceedings of Medical Societies.

TWENTY-NINTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION at BUFFALO, N. Y.

The opening session of the twenty-ninth annual meeting of the American Medical Association was held on the morning of the 4th of June, 1878, at St. James hall. The main floor of the hall was comfortably filled by eleven o'clock. The meeting, when in session, constituted a very distinguished looking body of men.

The Association was called to order at 11:10 A.M., by the President, Dr. T. G. Richardson, of New Orleans. Among those who occupied the stage were the President, the Vice-Presidents and the Secretaries. After the session had been called to order, prayer was offered by the Rev. L. VanBokkelen, D. D., rector of Trinity church, who wore his black clerical robe.

Profs. Gross, Davis, Toner and Bowditch, ex-Presidents of the Association, appeared upon the stage, and were received with applause.

Then came the following address of welcome by Dr. Thomas F. Rochester, of Buffalo.

DR. ROCHESTER'S ADDRESS.

MR. PRESIDENT AND GENTLEMEN:

Members, delegates and guests of the American Medical Association, the physicians of Buffalo and of Erie County most cordially extend to you a glad and open welcome. Our fair, flourishing and hospitable city is proud to receive as its guests the representatives of the medical profession of the United States. You are here assembled for three objects: First, for the general good and advancement of medicine. Second, to make personal acquaintance with each other. Third, to take a little of that which we so often prescribe for our patients, and which they rarely take enough of, to-wit, recreation. It is hoped that you will not be disappointed in any respect. As to the first and second objects, they are matters which you hold in your own hands, and when you consult the programme you will find there is plenty of room for a sufficient amount of good, earnest work. Your duties in this house of general sessions, and in the sections, will occupy a large portion of your time, but you are most cordially invited to visit our civic, commercial and eleemosynary

institutions. These come within the province of our profession, either directly or remotely, in many ways, and we are proud of those in our midst, and which we hope many of you will scrutinize and inspect. For our City Hall, which embraces all our civic and county offices for public use, we challenge comparison with that of any other city in this or any country—not perhaps architecturally, but for convenience, light, ventilation and healthfulness. Of this all the portals are made open to you by our excellent mayor, Mr. Schen. Immediately in the rear is a structure, which as a rule medical men have to condemn—not in an ethical but in a sanitary sense. Its narrow, barred windows, and adamantine walls proclaim its purpose; but go and see where our criminals are confined. It will make the heart of the humanitarian and sanitarian rejoice to find that security, and healthfulness of person, are combined for the unfortunate malefactor. This is especially thrown open for your inspection, although not yet completed, by the Commissioners of Public Buildings.

Mr. Wm. Wischerath, keeper of the almshouse, extends to you an invitation to examine this charity. It has a large hospital and insane department, and under the supervision of the State Board of Charities and particularly through the exertions of our local representative, the Hon. Wm. P. Letchworth, it has become a most efficient institution.

Those of you who wish to see one of the great instruments of commerce should visit an elevator, of which there are over thirty in this city. It may interest you to know that more grain is handled here than in any other place in the world. The proprietors of the Niagara elevator, the largest and most complete of all, will gladly receive a call from such as desire to see it.

Our Hospitals are open to you—the model General Hospital on High street, the new, elegant and extensive Hospital of the Sisters of Charity, the Providence Asylum, (lunatic) under the same sisterhood; also the St. Francis, on Pine street; the Widows' and Infants' (St. Vincent de Paul) on Edward street, and directly opposite the Le Couteux Deaf Mute Institute, founded by one of our adopted citizens. The Sister Superior in charge will very gladly exhibit a deputation from your body the mode of instruction of this most interesting class of unfortunates, and a specified hour will be fixed upon for this purpose, should it be so desired.

The Faculty of the Medical College most cordially offer to you the use of the halls, museums, preparations, laboratory—anything and everything connected with it, that may in any way be made of service to you.

Gentlemen! after the long and arduous duties of the day, and before the beginning of the different, but no less arduous duties of the evening there is a blessed interval—and we are glad that we can offer you a chance to breathe pure air with most delight-

ful surroundings. Go to our beautiful and most ample Park—go by our broad and charming Delaware Avenue—tarry on the attractive banks of the Park Lake—sweep around the grand open, with its broad stretches, its expanse of meadow and its stately and isolated trees of the old forest.

Returning, see our extensive State Asylum, nearly completed, a monument of the untiring perseverence of one of our most cherished brethren and distinguished townsmen, and one of the first to join and assist to build up the American Medical Association. Go down the broad Boulevard and cross to old Fort Porter, and there on the beautiful Front see the source of the broad and rapid Niagara, a spring no less than Lake Erie—look down this arm of a sea—'tis wrong to call it a river—see the railways and canals that accompany it, see it spanned by the bridge of many arches that unite two nations, and then look over at Lake View and the distant hills of Hamburg. Wait at this point, and with wide expanse of vision, embracing land and lake and river, see the glorious sunset hues, as the evening gun of the near Fort Porter salutes the orb of day. You will carry away no pleasanter memory of Buffalo than this, and as in the evening you are welcomed by the home hospitalities of our citizens, you will be the better prepared to enjoy them, for this breath of outdoor air, and these sights of the grand and the beautiful. It is not proposed to occupy more of your valuable time. What we can we will. The Committee of Arrangements is limited, but all the physicians of Buffalo—a Committee of the Whole—are most heartily at your service.

Dr. Rochester's address was received with loud applause.

The Secretary then presented the report of the Committee of Arrangements on the credentials of members. He read the list of 330 names from the registry book, and the report was adopted.

The Secretary announced that he had received charges against various medical societies, and some applicants for admission to membership, and the same were, on motion, referred to the Judicial Council.

The Committee of Arrangements presented a report recommending the reception of all the members of the Erie County Medical Society not represented, and the following distinguished persons by invitation:

George W. Stoner, M. D., United States Marine Hospital Service.

F. Lange, M. D., Kiel, Germany.

Edward Hutchinson, M. D., of Utica, N. Y.

They also presented for election as permanent members, the following:

George I. Northrup, M. D., of Marquette, Mich.; Stanford E. Chaille, M. D., of New Orleans, La.; L. G. Thacker, M. D., of Defiance, Ohio.

The Secretary next read the following cablegram from Paris:

President American Medical Association—May your meeting be harmonious and contribute more than ever to the advancement of medicine. Truly sorry I cannot be with you. MARION SIMS.

The reading of this telegram elicited marked demonstrations of approval.

The Chairman of the Committee of Arrangements made some announcements for the future proceedings and the programme of entertainments, after which Prof James P. White introduced the President, T. G. Richardson, M. D., of Louisiana, who delivered his annual address as follows:

PRESIDENT RICHARDSON'S ADDRESS.

GENTLEMEN:—However sceptical a large majoaity of the medical profession of the United States may have been thirty years ago in regard to the vitality possessed by this Association, then in the first year of feeble infancy, its subsequent wonderful growth has dispelled every doubt, and its present great power for good is recognized by all. The vast benefits it has wrought, in uniting the interest of the profession in all the different sections of the country; the encouragement which it has given to a higher culture; the valuable contributions which it has made to some departments of medicine, and the dignified position which it has gained in the eyes of the whole nation, have been so often descanted upon by my predecessors that it may seem somewhat trite and unprofitable to refer to them again; and yet, there is one point which deserves to be brought to your attention anew.

MEDICAL EDUCATION.

Although more than a generation has passed away since the first meeting of the Association in the City of New York, and only a few of the original members are now to be seen clustering around the venerable form of him whom we all delight to honor as its projector and the ever-watchful guardian of its interests, it is a well-known fact that the most prominent objects in the minds of the earnest men who composed that assembly were the improvement of the system of medical education in the United States, and the elevation of the standard of requirement for the professional degree. To these two great topics the thoughts of all were continually directed, and many of the utterances on that occasion evince a bold determination not only to imitate, but to press to a successful issue, a movement of reform which should involve every medical institution in the land. It is equally well known that, down to within a few years past, all the numerous efforts in this direction seemed to accomplish no permanent good, and philanthrophic and enthusiastic reformers, with the exception of a few hopeful and unconquerable spirits,

had come to consider the cause as almost wholly lost. The measures proposed, and adopted from time to time, were sufficiently incisive, and, to all appearances, admirably adapted to the ends in view; but, unfortunately, there was no power in the Association to carry them out, and they remained upon the record as mere mementoes of the praiseworthy zeal of their authors.

In view of this discouraging result, a change of tactics was resorted to, and the medical colleges were invoked to correct the evils which were so patent to every one, and for which they were supposed by many to be responsible. With what little earnestness, and consequently, with what little effect, these organizations responded to the appeal, it is not my present purpose to inquire. I desire on the contrary, to congratulate the Association upon the evidences which are now developing that its work has not been in vain. It is true that the method of mixed teaching practiced by the schools more than half a century ago is still generally followed; but it must be clear to all unprejudiced observers that there is a growing dissatisfaction with the imperfections of this method, and a disposition to adopt the only philosophic plan, known as the graded system, which prevails throughout all the other civilized nations of the world. In proof of this, I have only to point to the fact that within the past year the Medical Department of the University of Pennsylvania, the oldest school of medicine in this country, one whose fame has never been eclipsed, following the example of the Chicago Medical College and Harvard Medical School, has changed her ground, and is now fairly on the new road to a still higher position than that which she previously held.

This revolution which is taking place in the minds of medical teachers is, I am inclined to believe, almost entirely due to the public professional opinion which has been originated by the frequent discussions before this body. It is in the creating and directing of professional sentiment that the great power of the Association lies; and I trust, therefore, that, however wearisome this subject may have become to many of you, its agitation may not cease, as it is only in this way that the

CURRENT OF REFORMATION

can be kept in motion. * * * * * * *

As a means of accomplishing all this it is necessary that there should be a more thorough organization of

STATE, COUNTY AND DISTRICT SOCIETIES,

and I would therefore suggest to the Association the adoption of some uniform plan by which the sixty thousand physicians in the country may be encouraged to unite in district organizations, and through their representatives establish a living union with this, the central legislative body. When in this manner the objects here proposed shall have been effected, no honest faculty will dare confer a diploma upon an unworthy candidate;

and no one, save an emperic, will dare offer himself as a practitioner of medicine without documentary proof that he is grounded in the great principles of medicine, and that he has studied disease by the bedside of the sick, under the guidance of conscientious and competent teachers.

He suggested the following plan to stimulate original investigation:

1. Offer four annual prizes of not less than two hundred and fifty dollars each, to be awarded at the close of the second year after announcement, for original contributions to medical and surgical progress.

2. Empower the chairman of each of the four sections designated numerically in the Plan of Organization as 1st, 2d, 3d and 6th to appoint (and if possible before the adjournment of the session of the Association) a committee of three members of acknowledged ability and wisdom, who shall, as soon as practicable, select and publicly announce for competitive investigation, and report a subject belonging to one or the other of the branches included in the title of the section.

3. Let it be also the duty of each of the chairmen mentioned to appoint annually a committee of three experts who shall carefully examine the essays presented, and, if any one shall be found worthy of the prize, to recommend its award by the Association.

4. Require all competing essays to be placed in the hands of the chairmen of the respective committees of award, on or before the first of January preceding the meeting at which the prizes are to be announced.

5. All the prize easays shall be considered the property of the Association.

6. The names of the competitors shall be secret from the committees of examination.

7. Membership upon either of the two committees shall not debar from membership on the other; nor shall membership of the first exclude the member from becoming a competitor.

By some such scheme as this, of which only the salient features have been here sketched, there is reason to hope that original investigation may be stimulated, and contributions of a superior character be obtained. The objection which I fancy has already suggested itself to nearly every one who hears my voice, is the want of funds. To this I reply:

1. It can be clearly demonstrated that by the practice of only very little economy in the current expenses there will be an ample balance in the treasury for this and other important measures.

2. It is not very likely that all four of the prizes will be awarded every year.

3. If the receipts from annual assessments should prove in-

adequate, the rate may be increased to eight or ten dollars, as was proposed at the meeting of 1873.

4. I am quite confident that money will be voluntarily contributed for these and other similar objects, provided the Association shall place itself in a legal attitude to receive and disburse such gifts. Upon this point, which I deem of no small importance I beg leave to make a few remarks.

So long as the Association remains unincorporated, it is, of course, an organization entirely unknown to the laws of the land. It cannot legally accept or hold property of any sort whatever, and is therefore prohibited from entering into any formal engagement involving the payment of moneys for any specified object. It has no authority to collect its dues, nor can it be compelled to pays its debts. As it cannot hold property it, of course, cannot receive bequests nor even donations with limiting restrictions as to their use. Now I would ask whether it is not within the bounds of reasonable expectation that, if this disability should be removed, funds would from to time be committed by will or otherwise to the Association for immediate use as prizes, or for the endowment of research? I should be greatly disappointed if we should not witness after a while the gift of considerable sums of money for specified purposes, by persons without, as well as within, the circle of the profession. This has been the result elsewhere, and there is reason to believe that, as the Association shall continue to gain upon the confidence of the people, the same will occur here. The annual prizes which are yearly offered in the great societies of London and Paris, amounting to many thousands of dollars, are derived mainly from such sources; and I sincerely believe that it has been for want of opportunity that this Society has not been made the recipient of similar gifts.

Moreover, if the Association should be incorporated, and its funds be placed in the control of administrators, would not this insure economy in expenditures, and thus secure not only the insignificant sums proposed for prizes, but enable us to double the same within a very short time?

An act of incorporation can be readily obtained from any one of the States without restricting the Association as to its place of meeting. It will be only necessary that the trustees or administrators shall reside in, or at least hold their meetings within the bounds of the State granting the charter.

His remarks on State Medicine were quite extended. He conclude as follows:

As I understand it, the

OBJECTS OF STATE MEDICINE ARE THREEFOLD:

1. The prevention or arrest by official measures of all diseases which are not in their nature strictly limited to the individual, but which, from external causes, or from their specific characters, have a tendency to spread throughout families, insti-

tutions, and communities, and which cannot be otherwise controlled. This is the aim of public hygiene, which is the first grand division of State Medicine.

2. The qualification of men by suitable education for the duties involved not only in the practice of medicine, but also of public hygiene, the State not only directing the studies which they shall follow, but determining by examination when they have reached the standard of acquirement necessary for the proper performance of their great trusts.

3. The enactment and enforcement by the State of such laws as shall secure to every citizen the benefit of the services of the best professional experts in all questions of a medico-legal character.

In brief, State Medicine may be considered to include public hygiene, medical education and medical jurisprudence, to which may be added the establishment, control and sustentation of public institutions for the sick and infirm.

The first "State Board of Health" was established by Massachusetts in 1869; however, Louisiana created a "Board of Health" for the protection of the State by quarantine in 1855, and extended the power of this Board in 1870.

State Boards of Health have been established in the following 19 of the 39 States, and in the District of Columbia at the dates following, viz:

Alabama	1875	Massachusetts	1869
California	1870	Michigan	1873
Colorado	1876	Minnesota	1872
Connecticut	1876	Mississippi	1877
Dist. Columbia	1871	New Jersey	1877
Kansas	1875	North Carolina	1877
Illinois	1877	Tennessee	1877
Kentucky	1878	Rhode Island	1878
Louisiana	1870	Virginia	1871
Maryland	1874	Wisconsin	1876

They should employ their best endeavors to have

STATE BOARDS OF HEALTH

created where they do not at present exist, and they should by all means secure the right of nomination for appointments upon such boards; otherwise positions which demand men of peculiar qualification and sterling integrity will be conferred, as is too often the case, upon mere office-hunters who have no interest whatever in the matter beyond its pecuniary return. In this connection I would call special attention to the plan adopted by the State of Alabama, where the State Medical Association has been constituted the State Board of Health, and the county societies subordinate local boards with power to select all the officers necessary to carry on the work including that of quarantine. Whatever plan, however, the societies may advocate, let them bear in mind in recommending legislation, that while it is true that a people ignorant of even the elements of hygiene cannot be brought under sanitary legislation except by restraint,

such restraint should be used with the greatest caution and moderation and be sustained by an appeal to the common sense of those to whom it is applied. I therefore repeat with added emphasis the sentiment already expressed, that the hope of progress in State Medicine lies in the education of the people.

Prof. White being the First Vice-President, he occupied the chair during the delivery of the address. The speaker was frequently interrupted by applause, and the enthusiasm was quite general at the close.

Prof. White then arose and spoke in very high terms of the address, and moved that a committee, consisting of the President and his four immediate predecessors, be appointed to consider the suggestive points on education, prize essays, state medicine and hygiene, in the address and report. In seconding the motion Prof. Gross paid a high compliment to the author of the address. The motion was then carried unanimously.

Dr. Wm. Brodie, of Detroit, then read the following report as the representative to the Canadian Medical Association:

DR. BRODIE'S REPORT.

MR. PRESIDENT, AND GENTLEMEN OF THE AMERICAN MEDICAL ASSOCIATION:

The undersigned, who had the honor of being appointed to represent the Association as delegates to the Canadian Medical Association, held in Montreal, Ont., Sept. 12th and 13th, 1877, respectfully report:

That we performed that duty, and were received with that courtesy that could only exist between members of a liberal profession and the respect in which this Association is held by theirs. We were highly gratified at the interest taken by the members, not only in the dispatch of business, but in the earnest discussion of the papers presented and read, most of which were of more than ordinary merit. The Association, for the first time, resolved itself into two sections—one of medicine and one of surgery, which met in the afternoon, and in which these papers were discussed and approved. One paper, however, by the veteran Dr. James Workman, of Toronto, on "Crime and Insanity," was read by request, in the General Meeting; and, after a free and full discussion, the following conclusion, embodied in a resolution, was adopted, viz:

"That in the opinion of this Association it is desirable, in all criminal trials, when medical opinion suggests the possibility of mental unsoundness, the accused should be placed under the supervision of experts for a sufficient time to enable them to determine whether he or she was insane or not at the time the crime was committed."

The Association was presided over by our late distinguished

guest, Dr. Hingston, and who delivered a very able and comprehensive address, in which he took occasion to welcome the delegates of the American Medical Association, and to express the hope that the intercourse thus pleasantly begun, should be annually continued. Dr. James Workman was elected President, and Dr. A. H. David Secretary. The city of Hamilton, Ont., was selected as the place for the next meeting, and the time the second Wednesday of September next. Drs. Botsford, Trenholme and Horonbrook were appointed delegates to the A. M. Association. Their transactions have been published in a neat volume, and we would recommend, as an act of courtesy, an exchange of transactions by the Secretary of this Association.

WM. BRODIE, Michigan.

The report was referred to the Committee on Publication.

Dr. L. A. Sayre, of New York, made a verbal report of his visit as a delegate to the British Medical Association. The report was brief and practical, and highly satisfactory.

The following report on the action of the American Delegation before the International Medical Congress of Geneva, by Dr. E. Seguin, of New York, was then read by the Secretary:

MR. PRESIDENT AND CONFRERES:

The Delegates of the American Medical Association to the International Medical Congress of Geneva were charged: "to advocate the adoption of a progessive uniformity of means of observation and record, with the concurrence, if possible, of the members of this Congress who would be found there engaged in advocating the application of uniformity in this and other departments of science."

Conformably to these instructions, in order to prepare as many adhesions as possible to the idea they represented, your delegates exposed it before the British Medical Association meeting in July, in Manchester, and before the French Association for the Advancement of Science, meeting in August, at Havre, previously to accomplishing their direct mission in September, before the International Medical Congress of Geneva.

There, two of your delegates were elected Honorary Presidents, and found sympathies in the representatives of all nations. Moreover, the delegates of the late International Pharmacentic Congress of St. Petersburg, and those of the preceding International Medical Congress of Brussels, joined their efforts to carry the question of uniformity in all the branches of physic.

It was carried with enthusiasm from the Section of General Medicine to the General Meeting of the Congress, whose resolutions are too important and binding to not be at least summed up before you.

For physicians and surgeons the principles accepted by the Congress is a gradual international uniformity of their nomen-

clatures, scales, measures, calibres of instruments; of their records of private and hospital practice, of physiological experiments, of medical climatology, barometry, thermometry, statistics, etc.

In pharmacy the Congress of Geneva has accepted the conclusions voted at St. Petersburg and Brussels, as presented by Profs. Gille and Matsen:

1st. The adoption of a universal Pharmacopœia, to be written in Latin.

2d. The decimal system for weights and measures, and the centigrade scale for temperatures.

3d. A uniform nomenclature (probably that of Berzelius.)

4th. The chemical preparations to be of determined strength and purity; and the pure drugs to be of assayed strength, if possible.

5th. The Galenic preparations to be made as simple as possible, and described according to a uniform plan.

6th. The other pharmaceutical preparations to be made uniform (that is, those which are powerful, like tinctura opii, aconiti, nucis vomicæe, hashish, podophyllin, elatherium, etc.)

7th. Physicians to be left free and responsible for the non-official ingredients and doses of their magistral prescriptions.

At its last meeting, the Congress of Geneva nominated a commission charged to bring these matters to a practical maturity for acceptance by the profession at large and to the sanction of the next International Medical Congress.

The Commission in whose name this document comes for our approval and action, is composed as follows:

President—Patchiotti, Professor of Surgery in the University of Turin; Eason Wilkinson, Actual President of the British Medical Association; Marion Sims, late President of American Medical Association; Gubler, Professor of Therapeutics of the School of Paris; Mehu, Chief Pharmacist of the Hospital Necker, Paris; Matsen, Vice-President of the Pharmaceutic Society of Copenhagen; Critchett, Professor of Ophthalmology, London; Brun, Professor of Pharmacy in the University of Geneva; Gille, Professor of Pharmacy, Delegate of the I. M. Congress of Brussels; General Secretary of the Commission of the I. M. C. of Geneva; Edward Seguin, Acting Secretary for the same Commission for the United States.

This act of the I. M. Congress gives an international life to an American idea, and imposes upon us the obligation of keeping ourselves at the head of the movement we have initiated.

The physicians who are founding the vital statistics of this country, those of New York in particular, try to harmonize their documents with those of the Asiatic and European populations, and do gain new points of uniformity in every new issue of their tables. But, as yet, their statistics are only vital par antiphrase or irony, since they contain not much more than

mortuary figures, and nothing medical but the contested names of diseases from clashing nomenclatures.

The pharmacists planning just now a new American Pharmacopœia, have received communications of the conclusions arrived at by the Congress of Paris, St. Petersburgh, Brussels, Geneva, and will heed the warning of Prof. Matsen, of Copenhagen, that *pharmacists can not succeed in founding a uniform pharmacopœia without the concourse of physicians.*

The decimal system adopted by medical societies in several States will soon be the legal measure of the centigrade scale of temperature in making headway in both medical practice and posology.

Lastly, the idea has gained ground that physicians owe as strict an account of the vital forces entrusted to their care as the banker of his operations—an account which can be rendered only upon a daily record of the anomalies of the great functions and of their treatment.

But these, our progress toward uniformity, need be co-ordained to receive the sanction of the next International Medical Congress.

In consequence we propose that you name a Commission on Uniformity in Physic, with power to adjoin such specialists in the arts accessory to ours, as could give greater practicability and precision to our plans, said Commission to precise and recommend the measures of uniformity actually ready for acceptance; and to present this plan to the next meeting of the A. M. A., there to be adopted or modified previously to being presented as the American share in the work, to the International Medical Congress, which will meet in Amsterdam three months later.

The Delegates of the A. M. A. to the International Medical Congress of Geneva.

MARION SIMS,
THOMAS DRYSDALE.
EDWARD SEGUIN,
Reporter.

Supporting the proposition, M. M.

This was also referred to the Committee on Publication.

After some announcements had been made the Association, at 1:20 in the afternoon, adjourned to meet in sections at 3 P. M.

SECTION MEETINGS.

The section meetings of the American Medical Association began in the afternoon in accordance with the programme.

SECTION ONE,

that of Practical Medicine, Materia Medica, and Physiology, convened at No. 354 Washington street, second story, at three o'clock in the afternoon. Dr. A. L. Loomis, Chairman, presided, and in the absence of the regular Secretary, Dr. G. H. Etheridge,

of Illinois, Dr. J. Shoemaker, of Pennsylvania, was elected to fill the position. Dr. Shoemaker then proceeded to read an abstract of a paper on "Ring-worm in Public Institutions."

The next paper read was on "Pulmonary Tuberculosis," by Dr. E. N. Davis, of Chicago. It was then discussed by Dr. N. S. Davis, of Chicago, and referred to the Committee on Publication.

Dr. Glasgow presented a specimen of fibrinous bronchitis, and remarks were made by Dr. Loomis, of New York, in which he stated he had seen six cases of this rare disease, and found that the influence of climate controls it. Dr. Rich moved to have Dr. Glasgow report a full history of the case at the next meeting. The paper was referred.

SECTION TWO,

Obstetricts and Diseases of Women and Children, met at three o'clock, in the third story of No. 354 Washington street. The attendance was large, including several ladies. The Chairman, Dr. E. W. Jenks, of Detroit, presided, and Dr. H. O. Marcy, of Cambridge, Mass., was at his post as Secretary. Dr. Theophilus Parvin, of Indiana, proceeded to read an elaborate paper on the subject of "Ovotomy." This paper was discussed by Dr. Miller, of Chicago, who endorsed Dr. Parvin's theory, and by Dr. Reaves, of Ohio, Dr. Jenks, Dr. Dunster, of Michigan, and others. Attention was called to operations performed by Dr. James P. White and Julius F. Miner, of this city

SECTION THREE.

A large representation of physicians specially interested in Surgery and Anatomy assembled in St. James Hall this afternoon, and were called to order at three o'clock by the Chairman of the Section, Dr. Henry H. Smith, of Philadelphia. The Secretary, Dr. E. T. Easley, of Little Rock, Arkansas, was at his desk.

On motion, a committee of five, consisting of Dr. Post, of New York, Dr. Watts, of Jersey City, and Dr. Hyde, of Cortland, N. Y., and the Chairman and Secretary, members *ex-officio*, was appointed to whom all papers requiring over fifteen minutes to read them were to be referred.

Dr. Lucien Howe, of Buffalo, presented a remarkable case of grafted flesh which attracted consideral attention. It was the formation of a new eye-lid from a piece of flesh, $2\frac{3}{4}$ inches long by $1\frac{1}{4}$ inches wide, taken from a human arm. The piece was entirely detached and sewed on to the remains of the upper lid in such a way as to give the lid an almost normal appearance. The operation was performed three months ago, the patient coming from Iowa, and the wound and eye-lid healed in two weeks. An unusual feature of the operation was that the whole graft lived. The patient, a lady, was present, and the Doctor also exhibited photographs of the appearance of the patient before and after the operation.

SECTION FOUR,

that of Medical Jurisprudence, Chemistry and Psychology, convened in the rooms of the Firemen's Benevolent Association and without doing any business, adjourned until next meeting.

SECTION FIVE.

This section, (State Medicine and Public Hygiene) met in the afternoon in the basement of the Washington-Street Baptist Church, the Chairman, Dr. J. L. Cabell, presiding, and Dr. E. J. Marsh, of New Jersey, acting as Secretary. Dr. Henry I. Bowditch proceeded to read a paper of much interest, on Studies of an Epidemic of Diphtheria which prevailed at Ferrisburg, Vt., during the summer of 1877,

Dr. Charles C. F. Gay, of Buffalo, next read a paper entitled, "Excision of the Diaphysis of the Tibia," and Dr. S. H. Weeks, Portland, Me., followed with one on "Septicæmia following Resection of Bones."

Then came a paper from Dr. Henry A. Martin, of Boston, on the subject of "Tracheotomy without Tubes." The next paper was read by Dr. John D. Carpenter, of Pottsville, Pa., on the "Identity of Hospital Gangrene with Diphtheria."

The Chairman read a letter from Dr. D. M. Clay, of Shreveport, La., regretting his inability to be present.

Dr. Wyckoff, of Buffalo, was introduced and read Dr. Clay's paper on "Peri-typhlitic Abscess."

This completed the regular programme, but two volunteer papers were read—the first by Dr. Post, "Plastic Surgery;" and the second by Dr. E. M. Moore, of Rochester, on "Prevention of Septicæmia.

[END OF FIRST SESSION.]

MINUTES OF THE PROCEEDINGS AT THE INAUGURAL MEETING OF THE AMERICAN LARYGOLOGIAL ASSOCIATION, HELD AT BUFFALO, N. Y., JUNE 3RD. 1878.

INAUGURAL MEETING.

In response to an invitation issued on May 10th, 1878, to the following gentlemen: Drs. J. S. Cohen, Chas. Seiler, Philadelphia; Clinton Wagner, Geo. M. Lefferts, E. Elsberg, B. Robinson, New York; J. H. Hartman, F. Donaldson, Samuel Johnston, Baltimore; F. J. Night, E. Cutler, Boston; E. L. Shurley, Detroit; Wm. Porter, W. C. Glasgow, Thos. F. Rumbold, St. Louis; H. A. Johnson, M. Monnheimer, E. F. Ingals, and Frank H. Davis, Chicago, a representative number came together at

Buffalo, June 3rd, 1878, for the purpose of forming a national association for the advancement of the special department of surgery in which they were chiefly interested.

The meeting was called to order at 10:30 A.M., by Dr. Geo. M. Lefferts, of New York, and at once organized by the election of Dr. F. H. Davis, of Chicago, as Chairman, and Dr. Lefferts, Clerk.

Dr. Davis made the following remarks on taking the Chair:

GENTLEMEN:—I thank you for the honor of being called to preside at this meeting. The purpose for which we are gathered together requires no explanation. The call to which you have responded was issued in accordance with the individually expressed desire of the gentlemen present, and of others who are unavoidably detained from being with us, the object being the formation of a national association of specialists in the department of throat diseases. I presume the first move necessary in the perfecting of a permanent organization is the appointment of a Committee on Constitution and By-Laws.

At the conclusion of Dr. Davis' remarks, Dr. Lefferts being called upon, spoke as follows:

MR. CHAIRMAN AND GENTLEMEN:

* * * * * * * *

We have met to form a *Laryngological* Association. Let it then be composed of Laryngologists—men whose qualifications I have tried to sketch out—men, who by their special course of study, by their work, by their contributions to literature, by their dexterity in the use of certain special instrumental aids to diagnosis, as well as their special experience in diseases of the upper air passages, are justly entitled, not only in name but in deed, to the honor of membership.

If you grant the truth of what I say—the selection of a proper name for our organization need not occupy us but a moment—the National Laryngological Association expresses most clearly its character.

In conclusion, Mr. Chairman, I may re-echo the sentiment expressed by a distinguished colleague, upon a similar occasion to that which has called us together, and it is this, that the spirit in which we are about to create this Society is neither sporadic nor endemic in its character. It is a spirit shared in by the entire profession of our day. It is that spirit which demonstrates itself by bringing together men who are thinking in the same direction and laboring in a common field. It is that spirit which calls together the Ophthalmologists, the Aurists, the Gynæcologists, the Neurologists, and the Dermatologists, each department, like separate guilds, engaged in the erection of a great structure, carving and shaping and polishing the stone which is to constitute its contribution to the majestic edifice of medicine.

Dr. Lefferts then moved that a committee of three be appointed by the Chair, to draw up and present a draft of a Constitution and By-Laws. Motion seconded and passed.

Dr. Elsberg moved that a recess of an hour be taken, at the expiration of which the Committee would report, and that the Chairman himself serve upon said Committee.

Seconded and passed.

The Chair appointed E. L. Shurley, of Detroit, Dr. Geo. M. Lefferts, of New York, as members of the Committee.

Upon motion of Dr. Lefferts, Dr. F. H. Bosworth, of New York, was appointed temporary Secretary to call the roll, which was responded to by ten gentlemen, as follows: Drs. Clinton Wagner, Geo. M. Lefferts, L. Elsberg, F. H. Bosworth, of New York; J. H. Hartman, Samuel Johnston, Baltimore; E. L. Shurley, Detroit; Wm. C. Glasgow, Thos. F. Rumbold, St. Louis; F. H. Davis, Chicago, while the Committee was out.

Meeting then adjourned to reassemble at 12 M.

At the appointed hour a Constitution and By-Laws for the Association were reported by the Committee, which after discussion of the clauses, *seriatim* were adopted with only a few modifications.

On motion of Dr. Lefferts, a committee of three was then appointed by the Chair to nominate a list of officers for the first year, in accordance with the Constitution.

It consisted of Drs. Elsberg, of New York, Thos. F. Rumbold, of St. Louis, and J. H. Hartman, of Baltimore.

The morning session was then adjourned until 3:30 P.M.

At that hour the following list of officers was reported by the Committee, through their chairman, Dr. Rumbold, and unanimously elected by ballot:

President—Dr. Louis Elsberg, of New York; Vice-president—Dr. F. H. Davis, of Chicago; Secretary and Treasurer—Dr. Geo. M. Lefferts, of New York; Council, to serve one year—Dr. Clinton Wagner, of New York: to serve two years—Dr. Wm. C. Glasgow, of St. Louis; to serve three years—Dr. E. L. Shurley, of Detroit; to serve four years—Dr. J. H. Hartman, of Baltimore.*

The president elect was immediately conducted to the chair by the temporary chairman, Dr. Davis, and after calling the meeting to order made the following remarks:

GENTLEMEN:

You have been told by the Secretary of the Nominating Committee of the hesitancy and embarrassment I felt in allowing myself to be proposed for the Presidency on account of my being a member of that Committee, but I do not want you to think, on the other hand, that I felt indifferent regarding the nomina-

* In explaination of the unusual course pursued by the Committee in nominating one of their own number to serve as president, it is but just to state in its behalf, that the majority were strongly of the opinion that their nominee's claims for the position in question were so unquestionable and so generally conceded by all Laryngologists, that they would but be yielding to the unexpressed wish of the members present by making the nomination that they did.

tion. I do not intend to pretend that your electing me has not given me great pleasure and satisfaction.

When twenty years ago I took up the then newly-born specialty of medical practice, I resolved to devote to it my life, to devote to it energetically and perseveringly all the faculties that I possessed. The road has been a rugged one, and few of you can realize to-day the up-hill work, the obstacles and obloquy encountered. That I have not accomplished more than I have I regret. If another with my opportunities could have done better, I must say that neither my desire nor my exertion, but ability, is at fault. In the pursuit of our specialty I have found much happiness; reward for all endeavor; satisfaction from consciousness of good done; gratitude from patients; recognition from the profession; and altogether greater success perhaps than I have deserved. I fear that already the specialty has given me more honor than I have been able to confer on the specialty, and now, when a National Association of Laryngologists is formed, to be elected its first president is a greater gratification to me than any other that I can at this moment think of. I would rather hold this office than the Presidency of the American Medical Association. Indeed, I would rather be President of the American Laryngological Association than hold the political office which I look upon as a higher position than that of any monarch or potentate on earth, namely, that of President of the United States.

Thus appreciating the office, let me express to you, who have called me to it, in few and simple words, but with all the fervor of which I am capable, my heartfelt thanks. Its duties I promise to perform as well as I can. I shall endeavor to preside over your deliberations impartially and courteously, and my wishes for the success and welfare of the American Laryngological Association are such as to make me hope, that though I do the best in my power, I shall be the worst President the Association will ever have.

At the conclusion of the President's remarks each of the officers elect were severally and formally notified of their election by the President, and each signified his acceptance of the office to which he had been elected.

Dr. Lefferts moved, that the names of those gentlemen which appear in the letter of invitation, issued previously to the present meeting, and who, for various reasons were unable to be present, but had signified by letter their desire to be, and promised their co-operation, be added to the list of original Fellows.

Motion seconded.

After a long discussion, participated in by the majority of the Fellows present, and during which letters of endorsement and encouragement were read from the following gentlemen: Drs. Beverley Robinson, of New York; Wm. Porter, St. Louis; F. H. Donaldson, Baltimore; E. Cutter, Cambridge; E. Ingals,

Chicago; F. J. Knight, Boston. The motion was put and lost.

Dr. Davis moved that the list of names to be taken up and each considered singly.

Seconded and carried.

The following names were then added to the list of original Fellows.

Drs. J. S. Cohen, of Philadelphia; Beverly Robinson, of New York; R. F. Lincoln, of New York; F. J. Knight, of Boston; Wm. Porter, of St. Louis; H. A. Johnson and E. F. Ingals, of Chicago.

The following names were referred to the Council, for their action.

Drs. Chas. Seiler, of Philadelphia; F. Donaldson, of Baltimore; E. Cutter, of Cambridge, Mass.; M. Monnheimer, of Chicago.

The President then called upon the gentlemen present to suggest to the Council the names of such members of the profession, as were known to them, to be eligible for election to Fellowship and with whom it was desirable to correspond.

The following names were thereupon presented, and referred to the Council without debate.

Drs. Kealhofer, St. Louis; Morris J. Asch, New York; Chas. McBurney, New York; Thos. A. French, Brooklyn; Edgar A. Holden, Newark; Chas. A. Todd, St. Louis; W. F. Duncan, G. Whitfield Ward and Henry Flowland, New York; J. Roe, Rochester; X. C. Scott, Cleveland, O.; Herman Mynter, Buffalo; Louis F. Sass, New York; Dr. Dunlap, Indianapolis, Ind.; John E. Harper, Evansville; M. C. O'Toole, San Francisco; Jno. Van Dwyn, Syracuse, N. Y.; C. C. Schuyler, Troy, N. Y.; U. G. Hitchcock, D. Bryson, Delevan, F. L. Tres, New York; Horatio Bridge, Woolsey Johnson, F. P. Kinnicutt, Andrew H. Smith, Robert F. Weir.

Dr. Leffert's moved that this Association hold its first Annual Meeting in the city of New York, commencing on the second Tuesday in June, 1879, at 10 A. M.

Seconded, and after some discussion carried.

Dr. Wagner moved that the thanks of the Association be tendered to Dr. F. H. Davis, of Chicago, for the active and disinterested part that he had taken in calling together the Fellows present, and that the success of the meeting was due in great part to his energy and perseverance.

Seconded and carried.

Dr. Glasgow moved that the thanks of the Association be tendered to the proprietors of the Tifft House, for their courteous offer of the room in which the deliberations of the Association had been held.

Seconded and carried.

Dr. Lefferts gave notice that at the Annual Meeting of the Association, June, 1879, he would move to amend Section III,

of the Constitution, so as to read "The Fellows of this Association shall consist of Fellows and Honorary Fellows. The Fellows shall not exceed 50, in number. The Honorary Fellows shall not exceed 5 in American, and 15 foreign."

At 5:30 P. M., the Association adjourned.

GEORGE M. LEFFERTS, Secretary.

MEETING OF THE COUNCIL.

At 7 o'clock in the evening, a meeting of the Council was called, at which were present, Drs. Elsberg, Davis, Lefferts, Wagner, Glasgow, Shurley and Hartman. During the following hour a free discussion of the measures best calculated to promote the welfare of the Association, was participated in by all of the gentlemen present.

On motion of the Secretary, he was authorized to expend such part of the funds of the Association in his hands, as was necessary to print and distribute copies of the Constitution and By-Laws, as well as the report of the proceedings at the Inaugural Meeting.

A committee consisting of Drs. Elsberg and Wagner with the Secretray, was appointed to prepare the programme for the First Annual Meeting.

Adjourned at 8 P. M.

GEORGE M. LEFFERTS, Clerk.

OFFICERS FOR 1878.—ELECTED JUNE 3, 1878.

President.—Louis Elsberg, M. D., of New York.

Vice-President.—Frank H. Davis, M. D., of Chicago.

Secretary and Treasurer.—George M. Lefferts, M. D., of New York.

Other Members of the Council.—Clinton Wagner, M. D., of New York; William C. Glasgow, M. D., of St. Louis; E. L. Shurley, M. D., of Detroit, Mich; J. A. Hartman, M. D., of Baltimore, Md.

BATES COUNTY, MISSOURI, MEDICAL SOCIETY.

The physicians of Bates County met at Butler, on Saturday, June 8th, 1878, for the purpose of organizing a Medical Society. The meeting was called to order by Dr. W. H. Allen. Dr. O. F. Renick was called to the chair.

On motion of Dr. Whipple, a committee was appointed on order of business and permanent organization. Drs. Whipple, Walls, Goslin and Boulware were appointed as such committee. After the report of this committee was received, the following gentlemen were elected officers for the ensuing year: President, O. F. Renick, M. D.; Vice-President, T. C. Boulware, M.

D.; Secretary, E. A. Lea, M. D.; Treasurer, N. L. Whipple, M. D.; Censors, Drs. Whipple and Allen.

Committee on By-Laws and Constitution, Drs. Boulware and Lea, to report at the next meeting.

Drs. Whipple and Allen were appointed by the President as Essayists for the next meeting.

The President then thanked the Society for the honor conferred on him and expressed his wishes for the future prosperity of the Society and the advancement of medical science.

Adjourned to meet on the second Saturday in July, 1878, at Butler, Mo., at one o'clock P. M.

CONVENTION OF AMERICAN MEDICAL EDITORS.

The Tenth Annual Convention of the Association of Medical Editors was held June 3d, at the Tifft House, Dr. J. B. Gray, Superintendent of the New York State Asylum at Utica, in the chair. The following members were present: Dr. John P. Gray, Utica, *American Journal of Insanity;* Dr. William Brodie, *Michigan Medical News;* Dr. Theophilus Parvin, *American Practitioner;* Dr. C. Henri Leonard, *New Preparations;* Dr. J. J. Muhleron, Dr. E. S. Dunster, *Michigan Medical News;* Dr. Leartus Connor, *Detroit Lancet;* Dr. O. Cowling, *Louisville Medical News;* Drs. N. S. and F. H. Davis, late of the *Chicago Medical Examiner;* Dr. Thos. F. Rumbold, ST. LOUIS MEDICAL AND SURGICAL JOURNAL; Drs. J. F. Miner, E. N. Brush and W. W. Miner. *Buffalo Medical and Surgical Journal.* A number of physicians unconnected with medical journals were also present as visitors. The annual paper was read by the President, Dr. Gray, who took for his subject the question of the laws of England and the State of New York for the committing, detaining and discharging the insane from confinement. The paper, which is an intersting and valuable document upon a subject but little known, will be reviewed in the August No. of THE JOURNAL. Prefacing it with the remark that England and New York State were the only commonweaths in which the insanity laws were carried to a high degree of perfection. Dr. Gray proceeded to draw the analogies between those laws.

The thanks of the Association were voted to Dr. Gray for his able and interesting paper. It was then opened for discussion.

Dr. Davis, of Chicago, said he was sorry the laws of other States had not been brought into the paper so that the Association

might realize their defects. In Illinois, for instance, no insane person could be placed in confinement without first undergoing the shame of a public trial by jury. The injury to many patients was inconceivable.

Dr. Foster Pratt, of Kalamazoo, spoke of the laws of Michigan. In that State, he said, patients were in more danger from the courts than from the statutes. The Michigan laws were to a great degree similar to those of New York. He believed that relatives ought to have a right to take care of their insane as well as their other sick ones. If they neglected their duty, punish them; if they abused their power, punish them.

Prof. J. P. White moved that a copy of the paper be furnished to the Buffalo daily newspapers. He thought its interest to be something more than one for mere professional readers.

Dr Gray spoke briefly of the terrible consequences arising from the Illinois law of bringing all sorts of patients, men and women alike, into a public court room.

Drs. Brush and Dunster were appointed a nominating committee, and upon their recommendation the following officers, were elected for the ensuing year.

President, Dr. William Brodie, Detroit; Vice-President, Dr. J. A. Miner, Buffalo; Secretary, F. H. Davis, Chicago.

The meeting then adjourned.

Clinical Reports from Private Practice.

A CASE OF OVARIOTOMY. By EDW. BORCK, M. D., of St. Louis.

History as given by the patient: Emilie Baumrath, age 43; German; about five feet high, blonde hair, blue eyes, delicate stature, nervous temperament; married; has one living child nine years old. Resides 2726 Vineyard street.

She had observed a swelling in the right side of her abdomen when a young girl, which gradually enlarged. It was pronounced ovarian disease. She was treated by Horatio Stone, of New Orleans, by tapping and injections of iodine. This was continued for some time, but only with temporary alleviation. Her abdomen grew again to a considerable size, and on June 19th, 1858, the late Dr. Chas. A. Pope operated upon her, removing an ovarian cyst, which was much adhered. Several days after the operation by Dr. Pope, the wound opened, and a large amount of bloody serum came away. The patient made a complete and good recovery. She afterwards married, and became in time a happy mother.

She consulted me about her condition at the beginning of last March. At this visit she gave the above account of her case, and in addition stated that about eight years ago her abdomen began again to increase in size on the left side and gradually enlarged. She was tapped by a surgeon last January. At this time more than a bucket full of fluid was drawn off. The first portion of this fluid was dark in color, and sticky, the last of a light, clear color. The previous summer she suffered greatly; her abdomen was so distended that she was not able to dress herself, not even able to put on or remove her stockings.

She dreaded the coming summer; felt that she could not endure life in the condition she was in. She was very weak; could not sleep; had no appetite; had pain in her stomach; micturition was painful and frequent; was very constipated; her respiration hurried and short. She had a distressed appearance, well marked "facia ovariana;" menstruation irregular. In addition to this she had a small hernia on the right side.

The diagnosis was not difficult to make out. Upon examination I found the uterus indurated; the sound entered about $3\frac{1}{2}$ inches and inclined to the right. The uterus was movable but not freely. Thought the cyst mutiple, with adhesions; perhaps fibro-cystic. Upon her earnest request as to my opinion, I informed her that her case was not very favorable; that the tumor would eventually destroy her life; tapping would give but tem-

porary relief, and prognosis of operation doubtful. After she understood the danger of the operation I stated to her that it would be for her to determine, and that if she decided for an operation, I would not decline. She resolved for the operation; saying that she could not live in her present state. Accordingly, as a preliminary treatment, I put her upon quinine and iron, and good diet; the compound powder of glycyrrhiza occasionally as a laxative; bromide of potassium to tranquil nervousness. She improved pretty well under this treatment; was in better spirits, but still continued despondent.

May 29th, was the day selected for the operation. She had her room, clothing, bedding and everything well prepared. The evening before, she was to take enemeta to evacuate he bowels, at 8 P. M. 15 grains of Pot. Bromid, and one-quarter grain of morphine, the same again at 10 P. M., if needed, to induce rest; milk and bread for breakfast and one grain opium an hour before the operation. The enemeta did not work to her satisfaction, she took the powders, and, unfortunately, in addition a dose of caster oil on her own accord. This made her very sick; she vomited during the night and was very irritable. In the early morning she sent for Dr. E. A. Vogt, who gave her five drops of chloroform internally, which relieved the sick stomach. I saw her at 10:30 A. M.; she first thought she could not undergo the operation that day. In the meantime, Dr. E. H. Gregory and the other medical gentlemen arrived, and upon consultation it was agreed that she was in as good condition now as, perhaps, she ever would be for an operation, but this was not urged upon her; the decision was left to her alone. She at once made up her mind to have the operation performed. Everything was prepared and precisely managed in the same way as in the case reported by me in the April number of this JOURNAL; in addition, I had a battery, nitrite of amyl., solution of atrophine, one-quarter grain to 100 drops of water, and an actual cautery (iron) was held in readiness, if emergency should require it.

The patient was then placed in bed, the chloroform was administered by Dr. Chas. J. S. Digges; Dr. E. A. Vogt supported the abdomen; Dr. Hiram Christopher took care of the sponges; Mr. Alex. Heburn was again in charge of the steam atomizers, of which we had two; Dr. D. V. Dean, surgeon in charge of City Hospital, held himself ready for any unforseen casualty, and rendered valuable assistance during the operation. There were also present Drs. Wm. Johnston and E. Montgomery, with the skillful and admirable assistande of Prof. C. H. Gregory,* on the left of the patient. I made an incision in the line of its linea alba, directly through the old cicatrice, made twenty years ago, from the umbilicus down to within one and one-half inches of the pubis. I enlarged the opening to left and a little above

* It is interesting to state that this gentleman assisted Dr. Pope in the same case in 1858, and remembered the patient very distinctly.

the umbilicus; there was some hemorrhage. After it ceased I lifted the cyst by a small instrument which I had made for the purpose, of two strong iron wire needles, shaped like a tuning-fork, and a little curved on the side. This was thrust into the sack and held by the assistant upon his two fingers. The trocar was introduced purpendicularly down into the cyst, and between the prongs of this elevator. By this method the fluid is prevented from escaping by the side of the trocar into the cavity of the abdomen. The fluid was evacuated in this manner. I found that the cyst strongly adhered *everywhere*. About fourteen or fifteen inches of intestine had to be detached. A considerable part of the right peritoneum was also separated from it by the fingers. The whole uterus was involved. It was hard and surrounded and adherent to the cyst walls, like a fibroid mass, nor could it be severed from it. There was no pedicle. The cyst adhered deep down into the left side of the pelvis and it was impossible to inucleate it. The bladder was not implicated.

Having as far as practical, detached all parts carefully, it was then agreed as best to remove the uterus and cysts together. It took five strong silk double-ligatures, used in the manner like a chain, to secure the cyst firmly; the stump occupied a space of seven or eighth inches in length; the cyst was then cut close to the ligatures with a serrated scissors. There was some hemorrhage; one large artery and several small vessels were ligated. The cavity was cleansed and the wound closed with three deep-seated silk carbolized ligatures, over strips of oiled paste-board, like quilled sutures; the ends of the ligatures were tied over this, instead of superficial sutures. The ligatures of stump were left hanging out of the lower part of the wound. A tent was also introduced; the whole was dressed with carbolized lint, cotton and gauze bandage. A ½ gr. of morphine was subcutaneously injected. The operation lasted one hour and twenty minutes, including the dressing. The patient rallied well. Pulse 84, temperature 99, respiration easy.

I remained with the patient until 6 o'clock P.M. She took ice cream and ice. One gr. of opium was given her every two hours. She was tranquil and passed her urine naturally.

Dr. Vogt kindly relieved me until 9 o'clock P.M. Pulse 90, temperature 100, respiration 30 per minute. She became nauseated and had vomited ten or twelve times. The doctor prescribed bismuth and oxalate of cerium with good result. Ice, brandy and oat meal gruel were given. I then again remained with her until 11 o'clock P.M. Slept 15 or 20 minutes at intervals. Treatment continued, condition the same. Left her in charge of Sister Benedicte of St. Marie Convent. Rested good during the night.

MAY 30.—Dr. Vogt saw her at 7 o'clock A.M. She was doing well; passed clear urine twice. Pulse 120, temperature 102; respiration 26. I saw her at 10 o'clock A.M.; her condition was

the same; the wound looked well; there was no hemorrhage. The abdomen were flat; no pain; I removed the tent. Ice, brandy, beef soup and opium was continued. At 6:30 o'clock P.M., she vomited again and felt a little restless, but was cheerful and in good spirits, saying she thought that she would recover. Pulse, respiration and temperature remained the same.

An hour later she began to sink. The nurse sent for Dr. Vogt, who faithfully remained by her side, administering stimulants, etc., and used his best endeavors to sustain the patient. In the meantime he sent for me. I arrived at the house at 10:30 P.M., but the patient had breathed her last a few minutes before. There was no hemorrhage. Echemosis was visible almost immediately after death. No post mortem allowed.

As Dr. Vogt stated to me that the patient's breathing became very short and hurried; also that she was very restless, my opinion is that death was caused by heart clot.

The tumor consists of one large cyst with partial portitions. Adhered to the large cyst and blended together with it was a smaller cyst, which could be separated from it only with difficulty. Four cysts, easily broken, the size of a large walnut, containing a light gelatinous fluid, grew from the outside. The uterus was firmly connected by fibrous adhesions. The cyst weighed four pounds, and contained seven quarts of fluid, which was of a pale straw color, and had a peculiar fresh-beef smell. It was nearly transparent. Specific gravity 1007.

Chemical test: Slightly acid; congulate by heat. Contained albumen and some fibrin.

Microscopic examination: A few beautiful crystals of chloresterine; epithelial cells; and a peculiar elongated cell, with a nucleus; five granules; granular cell; the latter not abundant; a few blood corpuscles.

As seen by the above description, the operation was a difficult one. The tumor was a compound ovarian fibro-peritoneal cyst.

3613 North Ninth Street.

Selections.

BELLADONNA POISONING.—A case of poisioning by belladonna in a male child under 4 years of age is reported in the last number of *Guy's Hospital Gazette*. Although the child swallowed but a very small quantity (two or three drops it is stated) of a liniment containing the poison, the symptoms were very alarming and characteristic. The child screamed, clenched its hands, and was seized with tremblings and convulsions. On admission the pupils were dilated, conjunctivæ injected, and face swollen. He was delirious, often screamed, put his clenched hands up to his mouth, and had frequent slight convulsive attacks. The breathing was accelerated, with sonorous inspiration and elevations of the alæ nasi. He was treated with emetics of sulphate of zinc, followed by 5 gr. doses of tannic acid every half-hour. The next day he was quite conscious, and ultimately recovered.—*The Medical Press.*

QUACK MEDICINES.—At a recent convention of pharmacists in England was urged the importance of fixing some legal limits to the wholesale poisoning of the public by patent medicines. It was proposed that even if it be impossible altogether to suppress the reaction of dishonest quackery upon vulgar superstition, the venders of nostrums be compelled to divulge the composition of their wares, and prevented from publishing mischievous and mendacious advertisements concerning them. Among the examples cited, including sundry "hair restorers," which, in direct contradiction to their advertised pretentions, contain poisonous quantities of lead, the most glaring one is a largely certificated "Sure Cure for the Opium Habit," which is found on analysis to give two grains of morphine to the dose, recommended to be taken thrice a day. It is scarcely to be expected that American apothecaries, most of whom derive the larger part of their income from the sale of these secret nostrums, will join in the crusade preached by their British cousins; but it would be well if the American public were taught that ninety-nine hundredths of the proprietary medicines which flood the market are the products of uneducated impostors, either wholly inert or positively deleterious.—*Sanitarian.*

THE CHORDA TYMPANI.—This curious little nerve resembles, in one respect, the Nile, insomuch that its source still remains a mystery. The precise origin of the nerve cannot be ascertained by dissection. Recourse must, therefore, be made to the less certain ground of Physiology, and from this stand-point M. Vulpian

has addressed some observations to the Academy of Sciences. The nerve undoubtedly exercises considerable influence on the sense of taste. This has been proved clinically and experimentally. On the other hand, the experiments of Claude Bernard and others show that the branch is an excito-secretor nerve of the submaxillary gland, and vaso-dilator of the sub-lingual gland, although it has no motor power over these parts. There is a functional difference, then, between the facial nerve and the chorda tympani; and hence the inference adopted by some physiologists that the nerves are derived from different sources. On this latter point neither physiologists nor anatomists can find a common ground of agreement. Some would trace the chorda tympani to the small branch known as Wrisberg's nerve, while other anatomists would connect it with the superior maxillary branch of the tri-facial. The anatomical question is still so obscure that, in M. Vulpian's opinion, an experimental inquiry was necessary. This he undertook, and related the particulars to the Institute, the conclusion being that the chorda tympani is derived from the trigeminus, and not from the facial nerve or from Wrisberg's branch.—*London Medical Examiner.*

CHLORAL HYDRATE IN THE TREATMENT OF ULCER OF THE STOMACH.—Chloral hydrate has recently been tried with signal success at Pesth, for the relief of the symptoms of ulcer of the stomach. In the *Pester Med.-Chir. Presse* Hertzka records a case in which the symptoms had continued for ten years, and for which numerous remedies had been tried in vain. The sufferings of the patient had become very severe, and death appeared imminent. Three doses, fifteen grains each, of chloral hydrate were administered every evening, at intervals of two hours, and the treatment was persevered in for fourteen days. Carlsbad water was also taken during the daytime. By the third day the patient had experienced considerable relief: the cardialgia, hemorrhage, and vomiting ceased, and the functions of the stomach became partially re-established. Dr. Hertzka believes that the remedy possesses styptic and disinfectant, as well as anæsthetic properties.—*London Medical Examiner.*

GRINDELIA ROBUSTA.—This is an herbaceous plant growing on the West Coast of America, between 28° and 52° N. latitude. It is about eighteen inches in height, though occasionally running up to two or three feet. Mr. I. G. Steele, by whom it has been introduced, considers it to be a counter-poison of the Rhus toxicodendron, and Dr. Gibbons believes it to be efficacious in cases of asthma. It possesses both emollient and stimulant properties, and has been found serviceable as a dressing for blisters, and in cases of burns. It has been used as a remedy in uterine and vesical catarrh, and in inflammation, and other disorders of the urino-genital apparatus both in man and woman. The dosr is a teaspoonful of fluid extract. Cataplasms are oc-

casionally made of the whole plant.—*Annuaire de la Pharmacie Fransaise et Etrangere.*

PERIOD OF INCUBATION OF MUMPS.—Mr. A. R. Manby, of East Rudham, Norfolk, states that the period of incubation in mumps is passed over in silence in many modern works, and that on being asked how long a lady who had been thrown in the way of mumps three days previously need fear lest she had contracted the disease, he replied at hazard a fortnight, but was annoyed to find that an attack supervened on the twenty-first day.—*London Practitioner.*

DIPHTHERIA AND LACTIC ACID SPRAY.—Dr. H. Beyer, of Long Island City, reports two cases of severe diphtheria, successfully treated by the local application of dilute lactic acid in the form of spray. He recommends the adoption of this remedy in all desperate cases of this disease.—*Ibid.*

THE CAUSE OF SUDDEN DEATH AFTER SEVERE BURNS.—Ponfick has made some researches on the effects of severe burns on dogs, and has found that in all instances marked alterations are observable in the blood; the red all break up into a number of colored particles, which disappear after a short time, and cause disturbances in the kidney, spleen and medulla of bone. The kidneys eliminate the hæmoglobin circulating in a free state in the vessels, but their parenchyma becomes inflamed. They attribute the sudden death sometimes observed after severe burns to sudden alterations of the blood.—*Berlin, Klin. Wochenschrift,* No. 46. 1877.

LACTOPEPTINE.—This preparation which has the merit of being considerably cheaper than the best kinds of Pepsin, has been found by actual experiment to possess a decided and uniform solvent power, greater, weight by weight, than Pepsin as usually prescribed. It is a combination of Pepsin, Sugar of Milk, Pancreatine, Ptyalin, and Lactic and Hydrochloric Acids. We have administerded Lactopeptine in a number of cases where Pepsin was indicated and have been fully satisfied with the result.—*New York Medical Journal, Feb. 1878.*

Editorial.

THE requirement for space in THE JOURNAL has been so great that although 16 pages have been added to the usual number, yet we have been compelled to omit many notes of observations that were made while in Buffalo.

THE effect of the hot weather on the rollers of the printing press has detained this issue of THE JOURNAL.

IF the Secretaries of Medical Societies will send their proceedings (carefully written in ink) post-paid to THE JOURNAL they will be published in the issue following their reception.

THE Proceedings of the St. Louis Medical Society will be found in the latter part of THE JOURNAL. The 26 pages published in the last volume of THE JOURNAL (paged from 1 to 26 inclusive) will be sent to any subscriber requesting it, thus making it possible for those wishing to bind the Proceedings in book form, to do so.

Book Notices and Reviews.

A TEXT BOOK OF ELEMENTARY CHEMISTRY, THEORETICAL AND INORGANIC. By GEO. F. BARKER, M. D., Prof. of Physiological Chemistry in Yale College. pp. 342. John P. Morton & Co., Louisville, Ky., publishers.

The mechanical work of this book does great credit to the old house of Jno. P. Morton & Co., and very clearly demonstrates the fact that Western houses can do as good work as the Eastern. There is no discount on their part of the work.

The work is divided into two parts: I Theoretical Chemistry and II, Inorganic. In the first part the author has very clearly presented the latest views of Theoretical Chemistry, and in this respect the work is one of great excellence. The new views of nomenclature and notation are very clearly set forth and adopted.

Inorganic Chemistry is equally well presented. The author has left but little room for improvement, either as respects his methods of elucidating his subjects, or in the illustrations employed. The drawings leave nothing to be desired, and the apparatus employed in class experiments will be found well adapted to the end in view.

We can cordially recommend the work as one abreast of the times, and as necessary to a clear understanding of the science of Chemistry as now taught in the colleges of Europe and America. C.

A MANUAL OF OPERATIVE SURGERY. By LEWIS A. STIMSON, B. A. (Yale), M. D., Surgeon to the Presbyterian Hospital, Professor of Pathological Anatomy in the Medical Faculty of the University of the City of New York. With 332 illustrations. pp. 477. Henry C. Lea, Philadelphia. (From the Gray & Baker Stationary Co.)

In preparing this Manual, Dr. Stimson has sought to render it sufficiently complete, as regards both the number of operations described and the details of the descriptions, to meet the wants of the practitioner and of the student; but, on the one hand, he has excluded operations, such as the removal of tumors, which can be described only in general terms, and on the other, tried to avoid that minuteness of detail in non-essentials, which Mr. Syme condemned so vigorously in the teaching of the present day, as "the fiddle-faddle instructions, not only for using, but even for holding the knife, which sufficiently denote the poverty of intellect whence they proceed, and the lowness in aspiration to which they are addressed." Whenever a knowledge of details, however, has seemed essential to the correct understanding and performance of an operation, he has not hesitated to describe them very fully, and the same principle has governed the introduction of descriptions of the anatomical relations of the parts.

Even a short perusal of the book will convince one of its merits.

THE MEDICAL REGISTER AND DIRECTORY OF THE UNITED STATES, Systematically Arranged by States: Comprising Names, Post Office Address, Educational and Professional Status of more than Fifty Thousand Physicians; with Lists of Medical Societies, Colleges, Hospitals and Other Medical Institutions, with Abstracts of Medical Laws of Each State, Notices of Mineral Springs, etc. By SAMUEL W. BUTLER, M. D. Second Edition, Revised and Corrected. Office of the Medical and Surgical Reporter, 115 S. Seventh St., Philadelphia. 1878.

The second edition of the Medical Register and Directory of the United States is now laid before the Medical profession and the public. In its revision no pains have been spared to bring it up to the latest possible moment before going to press. The

aim has been to make it a complete and reliable Register and Directory of the Medical Associations, Societies and Institutions, County and State, Colleges, Health Associations, Mineral Springs, Hospitals, Medical Legislation, Officers of the United States Army and Navy, and of the Marine Hospital Service, and of all the physicians in each of the United States. Some of the States have been entirely reprinted for this edition. In others the plates have been corrected *in situ* as far as practicable, and new names inserted wherever it could be properly done. In others still—and the greater part—the revisions and corrections will be found in their proper order in a Supplement appended to the State. In one or the other of these ways all the inaccuracies and omissions of the first edition, so far as known, have been corrected.

For physicians who desire to send their reprints to their professional brethern, it is indispensable.

HALF HOURS WITH THE MICROSCOPE. By EDWIN LANKESTER, D. D. Illustrated. G. P. Putnam's Sons, Publishers. pp. 130, 12 mo., cloth. Price, $1.25.

This is a very valuable and entertaining book for beginners, for whom it is especially designed.

The chapter on Polarized Light, is as good as anything we have seen on this subject.

The work is divided as follows:

1. A Half-hour with the Microscope, which treats of its structure.
2. A Half-hour with the Microscope in the Garden.
3. A Half-hour with the Microscope in the Country.
3. Then at the Pond-side.
4. At the Sea-side.
5. In-doors.
6. Polarized Light.
7. An Appendix on the Preparation and Mounting of Objects.

Everyone owning a Microscope, and not a specialist, will find this work of much interest and assistance. C.

Books and Pamphlets Received.

A Case of Ovariotomy. By William Goodell, A. M., M. D. Philadelphia. 1878.

Eulogy upon Lunsford P. Yandell, M. D. By Theodore S. Bell, M. D., Louisville, Ky.

Old Age: its Diseases and its Hygiene. By Lunford P. Yandell, M. D., Louisville, Ky.

Certain Symptoms of Nervous Exhaustion. By George M. Beard, M. D., New York. 1878.

Ninety-Fifth Annual Catalogue of the Medical School (Boston) of Harvard University. 1877–78.

Fifteenth Annual Report of the New York Society for the Relief of the Ruptured and Crippled. May 1878.

On the Necessity of Caution in the Use of Chloroform Dur ing Labor. By William T. Lusk, M. D., New York.

Thirteenth Annual Announcement of the Medical College of Evansville, Ind. Session of 1878-79. Evansville. 1878.

Smithsonian Miscellaneous Collections. Circular in Reference to American Archaeology. Washington, D. C., 1878.

A Hysterio-Psychosis. Epilepsy dependent upon Erosions of the Cervix Uteri. By Geo. J. Engelmann, M. D., St. Louis.

True and False Experts. By Eugene Grissom, M. D., LL. D., Superintendent Insane Asylum for North Carolina, Raleigh.

A Hystero-Psychosis. Epilepsy Dependent upon Erosions of the Cervix Uteri. By Geo. J. Engelmann, M. D. St. Louis. 1878.

Fifty-Fourh Annual Announcement of the Jefferson Medical College of Philadelphaa. The Session of 1878-79 will begin on Tuesday, October 1st.

The Truth Admitted. The Columbia Hospital for Women, and Lying in Asylum. By a Citizen of Washington, D. C. Louisville, Ky. 1878.

The Hystero-Neuroses, with Especial Reference to the Menstrual Hystero-Neurosis of the Stomach. By George J. Engelmann, M. D. St. Louis. 1878

Second Annual Announcement of the St. Joseph Hospital Medical College. Winter Session of 1878-79, and Catalogue of 1877-78. St. Joseph, Mo. 1878.

Original Lectures. Tumor of the Male Breast and Cyst of the Neck. By J. H. Pooley, M. D., Professor of Surgery, Starling Medical College. Columbus. 1878.

The Obstetric Forceps. When and how to use it. Geo. J. Engelmann, M. D., Fellow of the American Gynecological Society; Fellow of the London Obstetrical Society, Etc.

Formulæ Used at the Clinic for Throat Diseases in the O. D. P. Deparment of Bellevue Hospital. F. H. Bosworth, M. D., Attending Surgeon; Wm. F. Duncan, M. D., Associate.

An Open Letter to Eugene Grissom, M. D., LL. D., Etc., Superintendent of the Asylum for the Insane, at Raleigh, North Carolina. From William A. Hammond, M. D., of New York.

Thirty-Eighth Announcement of the Missouri Medical College, formerly known as "McDowell College" and Hospital. Twenty-Third Street and Christy Avenue, St. Louis, Mo. 1878–79.

Economy and Necessity of a State Board of Health. Address delivered before the Indiana State Medical Society, May 21st, 1878. By the President, L. D. Waterman, M. D. Indianapolis: 1878.

Lupus of the Larynx, a Clinical Study. By Geo. M. Lefferts, M. D., Clinical Professor of Laryngoscopy and Diseases of the Throat, College of Physicians and Surgeons, New York; Laryngoscopic Surgeon to St. Luke's Hospital, etc.

Bathing, Cupping, Electricity, Massage. A Comparison of the Therapeutic Effects of Bathing, of Cupping or Atmospheric Exhaustion, of Electricity in the form of Galvanism and Faradism, and of Massage, in the Treatment of Debilities, Deformities and Chronic Diseases. By David Prince, M. D. Jacksonville, Illinois.

Treatment of Chronic Aural Discharges. By Julian J. Chisolm, M. D., Professor of Eye and Ear Diseases in the University of Maryland, and Surgeon in Charge of Baltimore Eye and Ear Institute, Surgeon of Presbyterian Eye and Ear Charity Hospital, etc. A Paper read before the Baltimore Academy of Medicine. Baltimore. 1878.

A Clinical Account of some Cases of Intra-Laryngeal Growths. By George M. Lefferts, M. D., Clinical Professor of Laryngoscopy and Diseases of the Throat, College of Physicians and Surgeons; Laryngoscopic Surgeon to St. Luke's Hospital, etc. New York: Trow's Printing and Bookbinding Co., 205-213 East 12th Street. 1878.

Treatment of Chronic Aural Discharges. By Julian J. Chisolm, M. D., Professor of Eye and Ear Diseases in the University of Maryland, and Surgeon in charge of Baltimore Eye and Ear Institute. Surgeon of Presbyterian Eye and Ear Charity Hospital, etc., etc. Baltimore, 1878

The Adoption of the Metric System of Weights and Measures by the U. S. Martne-Hospital Service for Purveying Medicines, and for other Official Medical Purposes; together with Rules for converting terms of the U. S. Apothecaries' Weights and Measures into their respective equivalents in terms of the Metric System; and Suggestions for writing Metric Medical Prescriptions, etc. Washington, 1878.

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by 2, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—MAY, 1878.

Day of Month	Minimum	Maximum.	Day of Month.	Minimum.	Maximum.
1	60 5	82 5	18	57 5	80.0
2	65.5	80.5	19	61.0	77 5
3	56.0	65.0	20	60 0	78 0
4	46.0	67 5	21	57 5	76.0
5	47 0	73.0	22	58 0	69 0
6	55.0	80.0	23	65 0	**87.0**
7	62.5	82.0	24	68 5	81.0
8	63 5	74 0	25	67.5	71.0
9	51 5	68 5	26	60.5	77.5
10	45.5	67.0	27	58 5	69 0
11	47 5	62 0	28	63.0	82 0
12	43.5	55 0	29	66.0	86 0
13	**42.5**	47 0	30	62.0	67.0
14	44.0	62.0	31	62.5	73.0
15	44.0	67 5			
16	52 0	72.5	Means	56 4	72.5
17	54.0	67.0	Monthly Mean	64.4	

Quantity of rain, 4 42 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM MAY 12, 1878, TO JUNE 1, 1878, INCLUSIVE.

Small-Pox		Cholera Infantum.	7	Hydrocephalus and	
Measles	9	Inanition, Want of		Tubercular Meningitis	1
Syphilis, Cong'al		Breast Milk, etc.	15	Meningitis and Encephalitis	3
Scarlatina	3	Alcoholism	1	Direct Effect of Solar Heat	
Pyæmia	2	Rheumatism and Gout	1	All Diseases of the Brain and Nervous System	26
Erysipelas	1	Cancer	8	Cirrhosis of Liver and Hepatitis	11
Diphtheria	2	Phthisis Pulmon	34	Enteritis, Gastro-Enteritis, Peritonitis, and Gastritis	13
Membranous Croup	4	Bronchitis	9	Bright's Disease and Nephritis	5
Whooping Cough		Pleuritis		Other Diseases of Urinary Organs.	1
Typhus Fever		Emphysema		Apoplexy	5
Typhoid Fever	3	Pneumonia	24	Cyanosis and Atelectasis	2
Cerebro Spinal Fe.	4	Heart Diseases	13	Premature and Preternatural Birth	4
Remittent, Intermittent, Typho-Malarial, Congestive and Simple Continued Fevers	7	Other Diseases of Respir'y Organs	8	Surgical Operat'ns.	1
Puerperal Disea's	4	Aneurism		Deaths by Suicide	3
Diarrhœal "	12	Marasmus — Tabes Mesenterica and Scrofula	15	Deaths by Accid'nt.	7
		Convulsions	26	Total Deaths from all Causes	293
				Total Zymotic Diseases	73
				Total Constitutional Diseases	59
				Total Local Diseases	144
				Total Develop'tal Diseases	6
				Deaths by Viol'ce.	11

CHAS. W. FRANCIS, *Health Commissioner.*

COMPARATIVE MORTALITY RATES.

CITIES.	Estimated Population, July 1, 1878.	Total Mortality for 3 weeks, ending June 1, 1878.	Annual Death Rate per 1000 for the four weeks.
New York	1,093,171	1,339	21.75
Philadelphia	876,118	769	14.95
Brooklyn	549,438	544	17 17
St. Louis	500,000*	293	10.12
Chicago	460,000	332	11.87
Boston	375,476	406	19.12

*Estimated population, May 1, 1877. 501,489.

NEW REMEDIES.

☞**Your Special Attention is Called to the Note Below.**

QUININE FLOWER.—Used in the South during the late war, to some extent, as a substitute for quinine, and now introduced to the profession by us.

YERBA REUMA.—From the Pacific slope, now introduced by us. Used in diseases of the mucous passages, especially in catarrh, acute and chronic, leucorrhœa, gonorrhœa and dysentery.

KAVA KAVA.—From the Sandwich Islands. First introduced by us. An efficient and agreeable remedy in gonorrhœa, gleet, gout and rheumatism.

CASCARA SAGRADO.---Introduced by us. It has long been regarded by the residents of the Pacific coast as a sovereign remedy for habitual constipation and dyspepsia.

COTO BARK.--From Bolivia. First introduced by us. It is said to be almost a specific against diarrhœa in its various modifications.

COCA LEAVES.--A powerful nervous excitant, giving great vigor to the muscular system and sustaining the human frame under extreme physical exertion and fatigue.

PARAGUAY TEA.—Largely used in South America as a stimulant to sustain the system when undergoing hunger, or great fatigue during the summer heats.

GUACO LEAVES.--This valuable remedy was also first introduced by us. Its use is indicated in cholera, diarrhœa, chronic rheumatism, etc.

BERBERIS AQUIFOLIUM.--A new California drug, now introduced by us, possessing extraordinary powers as a combined alterative and tonic, and valuable in syphilitic and scrofulous diseases, salt rheum, etc.

BOLDO LEAVES.—First introduced by us. The new South American tonic. In France it has been employed in cases where quinine could not be tolerated.

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GRINDELIA SQUARROSA.—From California. First introduced by us. An excellent and efficient remedy in malarial diseases, enlarged spleen, etc.

YERBA SANTA.--From northern California. First introduced by us. This drug is a standard remedy in the Western States in bronchial and laryngeal disorders.

FUCUS VESICULOSUS. -First introduced by us. An anti-fat remedy of great merit. No derangement of the stomach or general system seems to result from its use.

GRINDELIA ROBUSTA.--From the Pacific Slope. Since this drug was first introduced by us, it has earned for itself a reputation for almost specific curative action in asthma. NOTE.—There are several false varieties of this plant, which are offered as genuine. Physicians will readily perceive the difference in the taste of the fluid extract, as compared with our preparation of the TRUE plant.

KOOSO, GUARANA, BAEL FRUIT BUCKEYE BARK, URTICA DIOICA SOAP TREE BARK SANDAL WOOD, PULSATILLA, SUNDEW.	USTILAGO MADIS, MAGNOLIA FLOWERS AILANTHUS GLANDULOSA, FIVE-FLOWERED GENTIAN, NIGHT-BLOOMING CEREUS GRINDELIA COMPOUND, XANTHIUM SPINOSUM, WATER FENNEL SEED, POMEGRANATE BARK, EVENING PRIMROSE.	DAMIANA, BEARSFOOT, BROOM TOP, COUGH GRASS, CASTOR LEAVES PARSLEY SEED, ARBOR VITÆ, CHIRETTA, KAMALA.

NOTE.—For a detailed description of the botanical history and medicinal application of each drug, send stamp for our descriptive circular. We will also furnish our price list if desired. Any inquiry regarding these New Remedies will be promptly answered.

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Ninety-Fifth Annual Announcement---1878-79.

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The following gentlemen will give Special Clinical Instruction:

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Persons who hold no degree in arts or science must pass an *examination for admission* to this School, in Latin, in the elements of Physics, and in English. French or German will be accepted instead of Latin. The admission examination will be held June 24th both at Boston and at Cincinnati; on September 23d, at Boston only.

Instruction is given by lectures, recitations, clinical teaching, and practical exercises, distributed throughout the academic year. The year begins Sept. 26, 1878, and ends on the last Wednesday in June, 1879. It is divided into two equal terms, either of which is more than equivalent to the former "Winter Session," as regards the amount and character of the instruction. The course of instruction has been greatly enlarged, so as to extend over three years, and has been so arranged as to carry the student progressively and systematically from one subject to another in a just and natural order. In the subjects of anatomy, histology, chemistry, and pathological anatomy, laboratory work is largely substituted for, or added to, the usual methods of instruction.

Instead of the customary oral examination for the degree of Doctor of Medicine, at the end of the three years' period of study, a series of written examinations on all the main subjects of medical instruction is held at the end of each year; and every candidate for the degree must pass a satisfactory examination in every one of the principal departments of medical instruction during his period of study.

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TO THE

MEDICAL PROFESSION

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WYETH'S DIALYSED IRON.

FERRUM DIALYSATUM.

A Pure Neutral Solution of Oxide of Iron in the Colloid Form. The Result of Endosmosis and Diffusion with Distilled Water

PREPARED SOLELY BY

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PHILADELPHIA.

This article possesses great advantages over every other ferruginous preparation heretofore introduced, as it is a solution of Iron in as nearly as possible the form in which it exists in the blood. It is a preparation of invariable strength and purity, obtained by a process of dialysation, the Iron being separated from its combinations by endosmosis, according to the law of diffusion of liquids. It has no styptic taste, does not blacken the teeth, disturb the stomach, or constipate the bowels.

It affords, therefore, the very best mode of administering

IRON.

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The advantages claimed for this form of Iron are due to the absence of free acid, which is dependent upon the perfect dialysation of the solution. The samples of German and French Liquor Ferri Oxidi Dialys, which we have examined, give acid reaction to test paper. If the dialysation is continued sufficiently long, it should be tasteless and neutral.

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It is put up in bottles retailing for **One Dollar**, containing sufficient for two months' treatment. Large size is intended for hospitals and dispensing. Retail at $1.50. Price Lists, etc., sent on application.

JOHN WYETH & BRO.

PEPTONIC PILLS.

Pepsin, Pancreatin, with Lacto-Phosphate of Lime & Lactic Acid.

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This pill will give immediate relief in many forms of Dyspepsia and Indigestion, and will prove of permanent benefit in all cases of enfeebled digestion produced from want of proper secretion of the Gastric Juice. By supplementing the action of the stomach, and rendering the food capable of assimilation, they enable the organ to recover its healthy tone, and thus permanent relief is afforded. One great advantage of the mode of preparation of these pills is the absence of sugar, which is present in all the ordinary Pepsin and Pancreatin compounds—in this form the dose is much smaller, more pleasant to take, and is less apt to offend the already weak and irritable stomach. The results of their use have been so abundantly satisfactory, that we are confident that further trial will secure for them the cordial Approval of the Medical Profession and the favor of the general public.

Each pill contains one grain of pure Pepsin, and one of pure Pancreatin, which is equivalent to 10 grains of the ordinary or saccharated usually prescribed and dispensed. Physicians will appreciate the great advantage of this mode of administration, the increased benefit to the Dyspeptic being due to a full and effective dose of each, freed from the unnecessary bulk, and really hurtful addition of sugar. A single pill will give immediate relief.

DIRECTIONS.—Take one pill immediately after eating or when suffering from Indigestion, Lump in the Throat or Flatulence. For children reduce the pill to powder and give a fourth or half, according to age.

JOHN WYETH & BRO.,

CHEMISTS, PHILADELPHIA.

MEDICAL SOCIETY HALL,
POLYTECHNIC BUILDING,
ST. LOUIS, April, 1878.

Dr. Thos. Kennard's Paper on The Nature, Origin, History and Public Prophylaxis of Venereal Diseases, and the Doctrines of Syphilis.

All really available knowledge of venereal diseases has been gained by clinical study and critical observation, but before we are capable of appreciating what we see, we must have made ourselves familiar with the nature and history of the disease, as well as the doctrines that have been held in regard to it by the most eminent authorities. Our ancestors have left us descriptions of syphilis as clear and precise, so far as the external manifestations are concerned, as any of our more modern authors. Not only so, but they advanced many theories in regard to it which were correct, but had become so far forgotten that their modern enunciators imagined them original. John Hunter said that ignorance and falsehood were the two great obstacles to the study of venereal diseases, for the physician was often ignorant and the patient always so, and, unfortunately, more inclined to lie about this trouble than any other. Women more especially would endeavor to deceive us from self-interest. This statement is as true to-day as when first made, and, unfortunately, the majority of medical men consider themselves experts in this disease.

I claim no originality for the ideas advanced in this essay. The subject has been studied and discussed by too many able men, for the student of the present day to expect to add much that is new and true in regard to its nature, course, and the doctrines held in regard to it. I only aim to place before you such ideas as an experience of twenty-two years has impressed upon my mind. I shall dwell at some length upon public prophylaxis, and also upon the doctrines that have dominated medical opinion, and endeavor to prove to you, that enthusiasts have done more to shape our ideas by their egotism and dogmatism than by the teachings of experience and scientific observation. All students are fortunately neither reformers nor enthusiasts, and they demand a complete confirmation of every new idea advanced before they accept it as true. Such men have succeeded in reducing the treatment of venereal disease as nearly to a science, as that of any other malady which we claim to be able to manage.

Every writer upon medical subjects should endeavor to avoid being led astray by theories or the vagaries of men who are more anxious to confirm certain preconceived ideas than to com

municate valuable practical information, and who are ever ready to disregard clinical observations, no matter how carefully made and conscientiously reported, provided they do not sustain their views. Some are much more concerned about attracting the attention of the profession and the public by announcing strange ideas, and thus advertising themselves, than they are about relating in a truthful manner what they know or believe.

Whilst we should avoid empiricism in the common acceptation of that term, and endeavor to shape our treatment in accordance with doctrines that have been thoroughly established, we must not allow our prejudices upon certain points to so blind us that we cannot see the many exceptions to the general rule.

Primary venereal ulcers are either locally contagious only, or both locally contagious and constitutionally infectious. The latter class we call syphilitic sores, because they produce a general empoisonment of the blood through the introduction of a special, specific virus, which may manifest itself in every tissue of the body unless judiciously and timely treated.

The precise nature of this peculiar virus is not known any better now than it was when M. Donné first announced that he had discovered in the pus certain microscopic bodies, which gave rise to the syphilitic poison. This visionary theorist said that the pus of chancres of the glans and vulva was alkaline; that its globules were less smooth than those of other pus, and that it was the only pus in which the vibrio was found and the only kind which could produce by inoculation, the characteristic pustule and chancre. It was, however, soon shown that these bodies were not peculiar to syphilitic pus at all, but under certain circumstances were found in many different secretions, both healthy and morbid, and hence this great discovery was found to be a mere delusion.

Other enthusiastic searchers *after truth and seekers of immortality through the microscope* (the fertility of whose imagination was irrepressible), have discovered various spores and microscopic bodies in the blood, which they believed would explain the mystery, but unfortunately for them and perhaps fortunately for mankind, their ideas died before they did.

It is curious to notice to what absurd extremes men will allow an idea to lead them. Once impressed with the belief that they have discovered some great original fact that will render them immortal, and hand their names down to posterity, they interpret everything real and imaginary, as a confirmation of the truth of that *original* conception. If the medical world continues to confide in every statement made by a microscopist and experimentalist who announces some wonderful discovery that he thinks he has made, we shall never have any more fixed ideas in regard to certain mysteries than we have at present. The field for speculation and deception is entirely too extensive to be circumscribed by the boundaries of truth.

Mr. Jonathan Hutchinson, of London, whose statements carry great weight with them, has endeavored to classify syphilis with the exanthematous fevers, but his parallel does not hold good in many particulars. There are some resemblances between them, but there are also many differences. It is communicable from the diseased to the healthy, but only by contact and inoculation of the pus, and never as variola, scarlatina, rubeola, etc., or, through the poisoned atmosphere. It has its periods of incubation, duration and decline, but there is no uniformity about them as in the eruptive fevers, and generally slight fever accompanying the eruption. The exanthemata tend to recovery or death in a certain time whether treated or not. Syphilis generally goes on from bad to worse by slow and imperceptible degrees, until it seriously impairs the constitution unless properly managed. The poison of syphilis will not only contaminate the blood, but can readily be transmitted to posterity, and may affect even the third generation.

PROPHYLAXIS.

Syphilis is no longer the scourge that it once was, and if the common sense of the people in our large cities could be educated up to the point of permitting proper prophylaxis, if we could not stamp it out, we could greatly restrict its ravages. If the blind prejudices of preachers against the practical control of prostitution, which has never been checked in the slightest degree by their efforts, could be counteracted and the strange and unnatural desire of certain females to interfere with the control of that evil, could be checked, we might not only control syphilis, but prevent a vast deal of crime and misery which originates from unrestricted harlotry. Venereal disease is peculiar to the human race, and its primary stage is communicated only by contagion in the true sense of that term, and hence could be more easily prevented than other contagious diseases with which we have to deal. The experiment has been made in many countries and in this city, and the truth of my assertion has been proven beyond peradventure. Wm. Acton, of London, the leading authority of the world upon this subject, in an essay read before the Surgical Section at the Annual Meeting of the British Medical Association in 1873, stated that "without an intimate acquaintance with the laws of syphilis, no one can venture to legislate on what are now known as contagious diseases; the passing of acts bearing upon these diseases must be attributed to the attention which has been called to the frequency and severity of syphilis. On sanitary grounds, twenty-seven hundred medical men have, during the last session, urged the continuance of these acts. In fact, no one now contests the beneficial influence of their operation on public health; the evidence that we have brought together on this subject is overpowering; but we as medical men, and this Association more especially, have still a great task before us. We cannot conceal from ourselves that if we wish to carry out our

views, we have still moral prejudices to overcome. Granted (say our conscientious and well-intended opponents) the advantage of sanitary grounds, still we object to the Contagious Diseases Acts, because we fear that we shall lower the high standard of English morality. I can only repeat what I have stated elsewhere: that if I thought the existence or the extension of the acts would have such an effect, I, for one, would have long ago ceased to agitate this question; but the more the various bearings on this international question are considered, the more the ablest men of the day are convinced, that the Contagious Diseases Acts have a moral tendency. * * * * I hope to see the day when the disease (the ravages of which we have been describing) shall be stamped out. This almost total extinction has been found successful at Malta, and, on a small scale, syphilis has been banished from the garrison at Colchester. It has diminished in all our large towns where the acts have been in operation."

What a contrast between these twenty-seven hundred fearless English physicians, proclaiming their honest opinions and the hundreds of time-serving American practitioners who, although they knew that the social evil law was the best law ever enacted for the purpose of controlling prostitution, opposed its enforcement from considerations of policy! Being afraid to support an act which not only controlled the worst of all evils, but relieved the honest portion of our community from the expense of supporting harlotry with all its horrible consequences. Let the preachers and physicians, and pusillanimous legislators, who succeeded in having our social evil law repealed, join hands with their misguided sisters and congratulate each other upon the present flourishing condition of prostitution in St. Louis; upon the immense expense which they have saddled upon our tax-payers without sense or reason; upon the protection and encouragement that they have afforded prostitutes, and upon the general diffusion of venereal disease throughout our city!

In every age prostitution has attracted the attention of the public. In ancient Greece, they regulated the habits and modes of dress of courtesans, so that they could be distinguished from women who claimed to be virtuous.

Rome, in the height of her glory, regulated houses of prostitution. During the middle ages, every imaginable cruelty was inflicted upon women, who, either by choice or force of circumstances, bartered their persons for pay. Impoverishment, chastisement, banishment and imprisonment were alike tried in vain, until the inutility of such measures was fully demonstrated. The folly of all attempts at suppression having thus been thoroughly proven nearly six centuries ago, is it not strange that we should now encounter the same silly opposition from the same source that then defeated the efforts of humanitarians? In Venice, in 1302, an attempt at regulating and checking its

baneful influences was made. The English Parliament gradually became infused with humanity, and in 1491 it no longer permitted the banishment of persons suffering from venereal disease, but provided an asylum for the poor among them, and about one century afterwards the same legislative body manifested sense enough to declare that the unfortunate sufferers from venereal disease were not criminals but martyrs to their own passions.

What decrees, what injunctions, what threats were necessary to procure shelter for a few suffering mortals! If admitted to a hospital for treatment, they were banished as soon as the nature of their disease was detected, so strong was the influence of *so-called religious teachers*, who at that period monopolized debauchery, but were not willing to recognize its existence. One hundred and thirty years rolled by before the treatment of prostitutes for venereal disease was permitted by the civil authorities in France, and then only, in a dark corner of Saltpetriere, the dungeon for drunken and disorderly persons, who, in order to seek even this relief from disease, were compelled to be committed as criminals, and to cringe before the lash of their cruel custodians. The suffering that had to be endured in order to obtain even this little consideration is a sad commentary upon the charity of christian civilization.

The idea of regulating prostitution by a true medical police, which originated in 1302, was not really put in force, so as to include not only criminals, but all courtesans, until 1800. Religion kept back reform in this direction for five centuries, and has succeeded even one century later, in convincing many well-meaning citizens that the efforts to control prostitution, and to stamp out syphilis, was really an encouragement of vice and a protection to the vicious. Practical philanthropy is of much more value than canting hypocrisy in checking any evil, and isolating the diseased, and inspecting all prostitutes is in no sense a chimerical plan for preventing the spread of venereal disease. Even as late as 1856, when I held the position of assistant physician at Blackwell's Island, New York, where venereal diseases were thoroughly studied and carefully treated, every unfortunate sufferer who wished to obtain shelter and treatment there, was obliged to commit some petty crime before he or she could gain admission to the hospital for such cases, for the institutions there were all penal except the insane asylum, the alms house and the small pox hospital, and I very well remember how many poor wretches acknowledged that they had been induced to commit some misdemeanor in order to secure a home and medical treatment on the Island.

The chancroid cannot be communicated except by inoculation with venereal pus, and the poison can be easily destroyed by means of caustic acids, alkalies, the actual cautery and even by alcohol and powerful disinfectants. Under a rigidly enforced

system of inspection, then, this kind of venereal sore could be destroyed in its inception and the great source of infection be dried up, as was satisfactorily proven during the existence of the social evil law in St. Louis. Then, not one registered prostitute in fifty had chancroids; now the difficulty is to tell who is not diseased. This rapid increase in venereal diseases in our midst is mainly attributable to the influence exerted upon our citizens by those who were so extremely zealous in opposing the well-meant endeavors of the physicians and city officials who made an honest effort to control prostitution and to counteract its baneful consequences, and who had accomplished much good.

HISTORY.

Is syphilis as old as mankind, or was it unknown until the latter part of the 15th century, is a question still unsettled in the minds of medical men, but as no practical good could come from determining this point, I shall not spend much time in endeavoring to convince you of its antiquity, although I believe in it, but will refer you to the many able authors who have urged this question from the time of Astruc to the present day. That the venereal disease has punished the human race as far back in the dim distance of the past as the records of man extend, no one familiar with its history can deny. Moses prescribed precautions for its prevention. Hippocrates described various ulcerations upon the genitals *and the loss of hair following certain of them.* Celsus seems to have not only seen every kind of ulceration upon the privates, but clearly to have diagnosed the difference between the locally contagious sore and the constitutionally infectious one, or the soft and the hard chancre of to-day. Avicenna and Aretaeus noticed contagious ulcers of the genitals which were sometimes followed by *terrible ulceration of the throat*, especially in *young people.* Lanfranc, Gordon and others, traced the connection between ulcers on the penis and buboes in the groin, as well as eruptions upon the skin, (constitutional syphilis) which invariably followed peculiar sores. Numerous other writers, among the ancients, refer in unmistakable terms to constitutional syphilis, and we have no good reason to doubt that *chancres can claim as great antiquity as any other venereal sores.* The great trouble in determining this point is the uncertain period of incubation of the disease, as well as its variable and indefinite course and duration.

Can it be surprising that the ancients did not discover everything about this disease, when their more enlightened successors have failed to settle many disputed points during the four centuries that have elapsed since the ravages of the *New Disease* were so terrible in the army of Charles VIII, of France, during the siege of Naples, where it prevailed with such disastrous and disgusting consequences, that each nation accused the other of originating it, until the happy idea of its importation from the aborigines of America freed them all from disgrace, and con-

ferred upon the Spaniard the claim of having brought it from the New World? Strange to say, however, that Seville and other Spanish ports, where most of Columbus' followers landed, remained free from the disease, whilst it spread rapidly among the "French, who then occupied Naples." It was *harmless* to *Spaniards* but terribly destructive to *Frenchmen* and *Italians*.

Cannot this great difference between the ancient disease, the epidemic of the fifteenth century, and the so-called modern syphilis, be more satisfactorily explained, by attributing its virulence to the most miserable hygienic condition of the French army at that time, rather than to any sudden change in the nature of a contagious and infectious disease? Has not the vast improvement in the hygiene of all large cities, and the bettering of the condition of the poor, banished the dreadful phagedæna, formerly so prevalent in the purlieus of London, Paris and Rome, and made venereal ulcerations perfectly manageable when judiciously and timely treated? Did the symptoms of the epidemic of the fifteenth century resemble those of the syphilis of the present day? They certainly did not. Our disease is infinitely more like that which the ancients describe. Their leprosy was often communicated by sexual intercourse, but modern leprosy never is, so far as my knowledge extends. It is not at all strange that the ancients did not trace the connection between cause and effect in this disease, when even its origin was not known to be due to a specific poison until the great Fernel clearly demonstrated that fact; described its local and general symptoms; traced its origin to impure sexual congress, and stated most of the prominent facts in regard to it, which are today everywhere recognized as true. Cannot we account for the confusion and uncertainty in regard to it, when everyone who had it dreaded the consequences of acknowledging it, and concealed his trouble rather than be disgraced, suffer banishment, and run the risk of being domiciled among lepers?

For nineteen centuries, that is, from the days of Hippocrates to 1497, A. D., most written accounts of venereal disease which have been handed down to us, describe it as a purely local contagious disease, manifesting itself in local sores and suppurating buboes, which naturally, but not necessarily would lead us to believe, that for two thousand years the human race suffered from venereal diseases, but that syphilis was not added to their troubles until 1495. Does it necessarily follow that because an epidemic disease attacking the genital organs with extraordinary severity made its appearance at that time, that it was purely a venereal disease, or, if venereal, was of an entirely different nature from the local venereal sores that had prevailed from the earliest ages? Accessory circumstances and surroundings influence the type of most diseases of the present day, and there can be no good reason for denying that bad hygienic conditions

and excessive indulgence in promiscuous sexual intercourse may have modified the contagious poison, or even have generated a new one from it. The idea of a new disease may have originated from more accurate observations having been made by the men who lived in the sixteenth century, than by those who lived before them.

Cotemporaneous authors state that it was a *new disease*, but if so, how and why did it originate at this particular period and place? Is is not much more rational to conclude that it had existed for ages, but that the connection between the secondary and primary disease had not been traced? Merely because no authentic written history of syphilitic infection previous to that time has been handed down to us, should we be convinced that no such disease ever existed? Is it not much more rational to conclude that the observations were faulty and the records incomplete, than that a disease having but one origin should suddenly change from a purely local trouble, to a constitutionally infectious one?

ORIGIN.

I believe that syphilis first originated from one woman cohabiting in a short time with several men, and a want of cleanliness, and that its essential nature has been the same from the earliest ages, modified, of course, by constitutional peculiarities and surrounding circumstances. We have at least one author of the middle ages who described and treated *secondary syphilis*. He writes, "*aliquando totum corpus alterat*"—sometimes it changes (affects) the whole body. No doubt the eruptions peculiar to constitutional syphilis were observed by the ancient physcians, but owing to the uncertain interval between the initial lesion and the appearance of secondary symptoms, the precise relation between the two was not determined, and skin diseases being very common then, from filth and neglect of ordinary hygienic rules, the eruptions produced by syphilitic contamination were not attributed to their real cause. How common is it, even now, to see learned physicians overlook syphilis in some cases, and in others to atttribute certain eruptions to syphilitic poison when the patient has never had syphilis.

I am thoroughly convinced that venereal diseases originated from the promiscuous indulgence of females in sexual intercourse, that is, where one woman received the embraces of several men within a compartively short time. Wherever polygamy is practiced, gonorrhœa and venereal ulcers are seldom seen. These diseases are almost unknown to the inhabitants of the East, where what we call virtue is at a discount, and one man is allowed to possess the persons of several women. Wherever it now exists in the East Indies, it was either introduced or excited *de novo*, by the English soldiers who were quartered in large numbers upon the natives. The soldiers had no camp-followers with them, and had to gratify their passions by indulging

in sexual intercourse with an inadequate number of native women. This seems to be a trangression of nature's laws by the female, which is punished by the infliction of a loathsome malady, and whether this fact will furnish us with a satisfactory pathological explanation of the origin of venereal diseases or not, it cannot be gainsaid, that the disease originates, only when and where one woman cohabits with several men within a short space of time, and habituates herself to such practices.

Among the aborigines of America, venereal disease was unknown, or, at least unnoticed until introduced by their civilized conquerors and destroyers, but now it is one of the most formidable agents at work in blotting out the existence of that savage race who once owned and occupied this Western Continent. Twenty years ago, I stated in an essay entitled, "Medicine among the Indians," which was published in the September number of the ST. LOUIS MED. AND SURG. JOUR. for 1858, that so far from the Indians having first imparted venereal disease to the white race, we have good reasons for reversing the statement; for wherever trappers and traders are most numerous there this trouble prevails to the greatest extent, and every delegation of their warriors sent to Washington, returns covered with new marks of friendship and intimacy with their civilized sisters, which soon becomes evident to their squaws, and through them are transmitted as heirlooms to their tribe. Among the wild Africans we rarely hear of syphilis, and even during the existence of slavery in this country, where the laws and customs among the negroes imposed but little restraint upon females, and where virtue was decidly unappreciated among that class of women, venereal disease was rare. It is then more prevalent among the highly civilized, and so called Christian people, than any other, because their females are taught to believe that a loss of chastity cancels every good trait in their nature, and compels them to make beasts of themselves. Money is the god of Christian civilization, and about the only power fully appreciated at the present day, so that many females who are not fortunate enough to obtain it honestly by their meritorious attractions, will gain it through meretricious maneuvres, even if they must get it by polluting their persons. Society is so organized that women can barter their bodies, and so long as men will pay for sexual gratification, so long will women continue to indulge promiscuously with them, and so long will venereal disease continue to exist and to be propagated. This condition will, undoubtedly continue forever, and all that we can do will be to keep prostitution under control.

It may be difficult to understand how our ancestors, who were such close observers, failed to trace the connection between primary and secondary syphilis; but that is not near so remarkable as their want of correct knowledge in regard to the circulation of the blood, its oxygenation, and many other vital actions

which are so thoroughly understood by us now; nor half so irreconciliable with reason and common sense as, that a disease communicated by local contagion, should suddenly and completely change its nature. It is much easier to comprehend anything that has not previously been explained, than to believe that one species can be suddenly converted into another, and that a purely local contagious disease can become a constitutionally infectious one. Certainly venereal disease is one and the same, now, everywhere, and with every race, modified only by surroundings and constitutional peculiarities. Why should it have been otherwise in former times?

DOCTRINES OF SYPHILIS.

Venersal disease, and more especially syphilis, is a very complex study, and has been rendered unnecessarily difficult by the futile efforts of many teachers and writers to reduce this part of medicine to an exact science, and to prove that certain effects invariably follow certain kinds of local lesions. That is, that no primary sores upon the genital organs are syphilitic except the classic Hunterian, or hard chancre, and hence, that none but that kind of a sore could infect the system or generate constitutional syphilis. This endeavor to trace effects from causes, and from an accumulation of facts observed to frame invarying laws, by which we could, without difficulty, correctly diagnose the true from the false sore, the infecting from the non-infecting, the chancre from the chancroid, has resulted in a vast deal of good, but it has not proven what many claim for it.

As a general rule, the doctrine of the dualists holds good, and is a most admirable guide to treatment, viz: that a soft ulcer is merely a local lesion, and not infectious, and that an indurated ulcer is not only locally contagious, but also infectious, and must inevitably poison the blood and generate secondary syphilis; but the exceptions to these rules have been found to be so numerous that even the enthusiasts have been obliged to acknowledge that induration is not a necessary condition for infection. All honest medical men of experience now admit that secondary symptoms often have their origin in non-indurated sores, and more especially so in the female, and that not every indurated sore will be followed by general syphilis, even if left to run its course without treatment, or, in other words, that induration is not a necessary, nor by any means a certain guide to diagnosis.

The exceptions, however, are not sufficient to invalidate the general rule, nor to mystify our methods of management. Experience teaches us how to treat venereal diseases, and all the rules laid down in the books to guide us cannot supply its place. It, too, will lead us to discard entirely the doctrine of the confusionists, or that class of men who still believe that syphilis may originate from any and every diseased condition of the sexual organs, as from herpes, eczema, erosions, fissures and vegetations, and that we may also have a gonorrhœal syphilis and a syphilitic gonor-

rhœa. Observations made from the time of Hunter down to the present day, have thoroughly established the fact, that gonorrhœa and syphilis are entirely distinct and different diseases, and have nothing in common with each other, except that they both originate from impure sexual congress.

Not so easy, however, is it to satisfactorily harmonize the difference of opinion between the unitists and the dualists, for although they have thoroughly established the truth of certain general laws, experience will not warrant us in calling them universal, and it is unreasonable to suppose that it ever will, for as no two human beings are precisely alike, no disease affects every system in precisely the same manner. A poison which may not infect one person at all, may produce simply a local lesion in the second, and both a locally contagious and constitutionally infectious lesion in a third. Do not some men contract gonorrhœa and venereal sores in spite of the greatest care, and others seem proof against it under every condition? Do we not meet with some persons upon whom the virus of vaccine will never take? Are not the stings of bees and wasps exceedingly poisonous to some, and comparatively inocuous to others? Does not even the bite of the dog suffering from rabies, and the poison of venomous reptiles fail to kill some human beings? Why, then, do we wonder that the venereal virus fails to act upon some persons; acts only locally upon others, and produces general blood poisoning in still a third class? The laws that control organic substances are not invariable like those governing the inorganic world, and consequently cannot be determined with the same degree of accuracy. The sores originating upon a certain tissue and in a certain portion of the body, differ in appearance from those originating in another tissue and another region, even though they may have had their origin from one identical poison. Even the same sore may be indurated in one portion and non-indurated in the other, as sometimes is seen when it involves both the glans-penis and the prepuce.

DEFINITIONS OF UNICITY AND DUALITY.

The definitions of duality and unicity differ with different authors. Some claim that the poison is one and the lesions two. Others say that both the poison and lesions are two and entirely distinct. That is, one school contends that we have two kinds of *chancre*, the one hard and the other soft, but only one *syphilitic* poison; and the other that we have but one *syphilitic* poison and one syphilitic lesion, viz: the indurated chancre, and that chancroids are not syphilitic at all, but merely local contagious *venereal* sores.

The last doctrine is that which has been held by the dualists from the time that M. Bassereau announced it in 1852, up to a very recent period. Now, however, they have gone a step farther and claim that chancroids do not necessarily originate from a specific *venereal*, or chancroidal virus, but that sores,

which cannot be distinguished from chancroids, have been repeatedly produced by the inoculation of pus originating from *simple inflammation*. So that chancroids are not necessarily venereal. This is really acknowledging that there is but one *venereal virus*. This last *fact* is evidently a *false* one, for it is flatly contradicted by the experience of centuries, and although it has received the unqualified endorsement of the most *prominent* authority in this country, Dr. Bumstead, a few years will suffice to convince every thinking man that this is only another emanation from the fertile imagination of enthusiasts. This doctrine of Kaposi and Wigglesworth will prove very short lived, for although pure pus from simple inflammation may produce ulcers, when inoculation is performed with it, those ulcers will not be chancroids, for they cannot originate except from venereal virus.

The dualists no longer contend that induration is the characteristic and unerring symptom of syphilitic infection, but they claim to disregard all local indications, and to rise above such considerations and to seek the source and origin of the poison. How they guide themselves in their blind ascension is incomprehensible to me.

In nature, the difference of species is characterized by being immutable; like always produces like, and one species cannot be converted into another. Upon this ground the dualists contend that the infecting and the non-infecting sore are different in their nature, their appearance, their course and their consequences, and must originate from distinct and different kinds of virus, and cannot be produced by the same poison. Confrontation, that is, examining the party infected with the party infecting, and finding that like produces like, is the strongest argument of the dualists, but, unfortunately, such examinations do not sustain the assumption, for one woman on the same evening, has communicated a chancroid to one man; a hard chancre to a second, and a sloughing phagedenic sore to a third, as related by Mr. Acton, of London, who also says, that one or all of these sores may be followed by constitutional disease, as experience has frequently proven. The incontrovertible nature of the two kinds of sores has not been proven either by experiment or clinical experience. Nor is the chancre produced in every case like the one producing it. Generally the law holds good, but not universally. The most enthusiastic advocates of the dualistic doctrine now, do not claim more than this, because the exceptions to the general rule are too numerous and well authenticated for them to claim that the law is universal. Experience has proven the contrary everywhere.

The influence which popular opinion exerts upon even the most distinguished medical men was never better shown than in the change wrought upon M. Ricord by the teachings of his stu-

dent, M. Bassereau, after they had been accepted by many eminent syphilographists.

Ricord had taught Bassereau most that he had learned about this disease. He had really found out more that was practically useful and undeniably true about syphilis than any of his predecessors, excepting only John Hunter, but he renounced his own belief, founded upon extensive experience, and adopted the doctrines enuciated by his pupil. He says in the last edition of his Lectures upon Chancre, that in all the cases where we have been enabled to ascend to the souree of an indurated chancre, we have invariably found a lesion of the same nature. In every case where several individuals had contracted their chancres from the same source, we have always found the same lesion in these several individuals, viz: An infecting chancre followed by constitutional symptoms. The law of relation between cause and effect, has never been invalidated by a *single exception*, for in every instance have we found a confirmation of a new doctrine, that infecting chancre transmits its own species. No wonder that such an indorsement as this should have made Bassereau's doctrine the prevailing one of the day. Time has proven, however, that all the truth there was in it, had been known to the early writers upon syphilis, viz: that there was a very marked difference in the appearance, course and sequelæ of different primary ulcers. Experience had proven that the great majority of sores were not followed by constitutional disease, but were simply local contagious ulcers of more or less virulence, and that the infectious sores were really the exceptions. This fact had been known for a long time, but upon what it depended, had not been determined. Whether there was a difference in the nature of the virus producing the hard and the soft sore, or whether it depended entirely upon accessory circumstances, such as location, idiosyncrasy or depraved constitution, was not known. John Hunter thought and taught that there was but one venereal virus, and that the difference in the appearance and course of the ulcers depended entirely upon their situation and upon the surroundings, peculiar habits and constitutional susceptibility of the sufferer.

Abernethy noticed that many venereal sores were not specific, and that we could not determine which were really syphilitic except by their sequelæ.

Benjamin Bell and Carmichæl, in order to explain this, advocated the doctrine of a plurality of poisons, and contended that every peculiar sore originated from a different virus.

Ricord learned from his vast experience, that constitutional syphilis did occasionally follow soft sores, and until converted by Bassereau, he taught that doctrine.

We are ready to acknowledge, that generally the chancroid, or soft sore, is not followed by constitutional contamination, but

we are not willing to stultify ourselves by admitting that secondary syphilis never follows the soft sore. Every physician who has had much experience in the treatment of venereal diseases, and more especially among women, and is not prejudiced by the dualistic doctrine, must acknowledge that constitutional syphilis often follows ulcers having none of the typical characteristics, and is also occasionally found in persons where no local lesion of any kind was ever perceived by the patient.

John Hunter said that the syphilitic virus could be absorbed from the mucous surface, without any lesion of that surface; that is, without previous inflammation or ulceration, which process he termed physiological absorption. After the virus was thus absorbed, it contaminated the whole system, but sometimes left *no trace of its poisonous action at the point where it was introduced.* He had, of course, arrived at this conclusion from having seen constitutional syphilis affect the system when no chancre had preceded its outbreak. Such cases as these, Hammond and other able writers (since the distinction between gonorrhœa and venereal sores of all kinds has been so plainly drawn), call gonorrhœal syphilis.

Many years ago, I stated before this Society, that we could much more readily and rationally account for the occurrence of secondary syphilis in persons who had never had any perceptible local lesion that could give rise to it, by admitting that in exceptional cases the syphilitic virus might be directly introduced into the blood without having produced any local sore, than that it could be absorbed through a mucous membrane which was intact, or that the gonorrhœal pus could be converted into the syphilitic. All the cases that I have met with of this kind, have recurred among refined, educated and reliable gentlemen, who assured me that they never had had any sore at any time, and some of them had had no gonorrhœa either.

I have under my care now, a most intelligent gentleman, who has had unmistakable syphilis for six months; who is not married, but who is anxious to be, and has no motive to conceal any fact in the history of his case from me. He had numerous syphilitic ulcers in his throat and mouth, and was rapidly losing his hair when he first came under my charge, and was surprised when I pronounced his case syphilitic. As we now admit that induration of a sore when truly syphilitic is a consequence and not a cause of syphilis, why may we not also admit that the poison may be directly introduced into the blood like that from rabies, and, although the point of introduction, (a fissure, a crack or an abrasion) may not be detected, that after some uncertain period of incubation it may cause syphilitic symptoms upon the skin, and on the mucous membranes to manifest themselves. No causes producing disease in the human system act invariably in the same way. Some men rarely if ever expose themselves

without contracting venereal disease. Others seldom contract it under any circumstances.

That the syphilitic poison is absorbed almost instantly into the blood has been proven by many careful observers, who have thoroughly cauterized the abrasion or laceration, through which the inoculation had occurred, within a few hours after impure connection, and yet in due time, general syphilis followed. There is no reason why syphilitic poison may not be as rapidly absorbed as any other. Silas Durkee, in his work on Gonorrhœa and Syphilis, at page 281, under the head of Secondary Symptoms without Primary, details several characteristic cases which had come under this observation, where no primary lesions had ever been detected.

Erasmus Wilson says that poison can be taken directly into the system without causing any of the manifestations of primary syphilis, and yet be followed by indisputable constitutional infection.

Sigmund says, that constitutional syphilis is, by no means, always preceded by an indurated chancre, and more especially is this the fact with females. Hebra, Lane, Velpeau, Trousseau, Morgan and others advocated the same doctrine.

Ricord's explanation of those obscure cases where secondary symptoms seemed to follow gonorrhœa was rather an ingenious one, because it kept everything in the dark, and no one could disprove his assertion, viz: that in such cases a chancre was invariably concealed within the urethra. This idea, of course, became universally adopted, because it covered the whole case. Chancrous larvæ was a satisfactory explanation to every one as long as Ricord's ideas dominated the world. The fact that such an explanation necessitated the acknowledgment that either one person was producing a virulent and a non-virulent disease at the same time, or that gonorrhœal pus and syphilitic pus were both introduced deep into the urethra at the same moment, which would seem impossible, did not in the slightest degree prevent the adoption of these views. It is almost an impossibility for syphilitic pus to remain undisturbed in the urethra long enough to produce a chancre, unless that canal was previously abraded or in some way lacerated, because the urine would wash it away.

In an article published in the Transactions of the New York State Medical Society for 1869, page 191, by H. S. West, M. D., of Binghampton, giving his medical and surgical experience in Asia Minor, he states that he had seen many hundreds of cases of the secondary and tertiary forms, which he could not trace, from any history that he could get, to the primary sore. He also states that the diagnosis between tertiary spyhilis and leprosy was very plain and that he could not have been mistaken about it. Concealed urethral chancre was a perfectly satisfactory explanation of the origin of these secondary cases of syphilis with-

our primary lesion being observed, to M. Ricord and his followers, but I don't think that I ever met with such a case.

Jonathan Hutchinson, one of our best authorities upon syphilis, says: Without entering at length into the controversy, I will simply remark that the evidence in favor of *unicity* or *duality* is to my mind quite inconclusive. Let us accept clearly the doctrines so essential to the explanation of numerous pathological phenomena, that all living pus is contagious, and is capable of producing an inflammation similar to that in which it originated, and we shall not have much difficulty in explaining the different forms of venereal sores.

The majority of the latter are probably abortive inoculations. In the performance of vaccination the utmost care is taken to secure a pure virus, yet every now and then an abortive sore is produced. If it were the practice to inoculate again from these abortive sores when suppurating, we might soon produce an analogous state of things to what we now have in respect to the soft and hard chancre. The inoculation of syphilis is, of course, a matter of mere chance, and the virus with which it is effected can be but very seldom in a state of purity.

How rarely in the *female* do we meet with the true type of the indurated sore! If we reflect on the mode in which syphilitic inoculation is accomplished, the wonder will be not that apparent varieties as to both primary and secondary symptoms occur, but that the disease preserves the close connection with its type that it undoubtedly does. Here, if anywhere, are the conditions under which we might expect a new species to originate. In the first place the virus is constantly mixed with other secretions, and very frequently with those of an inflammatory origin. In a great many instances the person from whom the contagion is received is one whose own body has been previously rendered proof against the disease.

Most prostitutes, probably, suffer from syphilis early in life and during the greater part of the period which they pursue their vocation, are incapable of being again infected by syphilis, although still liable to contract and to transmit primary sores of a modified character. Then, not only must we make allowance for difference in kinds of secretions with which the inoculation is affected, but also for differences in the recipient's state as regards it. It is believed by some authors that chancroids are abortive chancres; sores produced upon persons who have previously had true chancres. Others attribute the marked difference in the local lesions and their consequences to idiosyncrasy or to some special diathesis, or to the condition of health of even a usually robust constitution at the time of exposure, or lastly, to the part of the person upon which inoculation has been performed.

The fact that all reported cases, where syphilis has reoccurred

in the same individual, have been much milder than the first attack, proves that the action of the poison has been much modified by the first attack. Why may we not then conclude that chancroids are modified chancres as their name indicates or that chancres have been generated from chancroids, and not that they originated from entirely distinct kinds of pus?

INDURATION.

If induration be absolutely pathognomonic of syphilis and not dependent upon the tissue which underlies the ulcer, why does it not always and invariably present the same characteristics? The most enthusiastic advocates of the value of induration as the one sign which we may pin our faith to, do not deny that it presents a variety of forms; sometimes feeling like a split pea; sometimes like thin parchment underlying the ulcer, which can be moved about and bent, as it were, by raising up and pressing the under surface of the sore, and lastly where the induration is much more extensive and involves a much larger amount of tissue. As the process producing induration and the poison inciting it is always the same, what can cause such a difference in the result except the nature of the tissue upon which the ulcer rests; the extent of induration and it density is governed more by its situation and the tissues involved than by the nature of the poison, and the severity and duration of the secondary symptoms does not depend at all upon the amount of induration. The base of any venereal sore may become indurated, by irritation or accidental inflammation, excited by the application of irritants, as iodine, nitrate of silver, sulphate of copper, etc. This accidental induration is not an uncommon accompaniment of simple abrasions, excoriations, and herpetic ulcers. Where repeated cauterization has been employed it always aggravates the case and makes it impossible to diagnose a specific from an accidental induration. Almost all inoculations that have been artificially performed, to determine that induration is characteristic of the true syphilitic sore, have been made upon the skin, and most hard sores contracted by sexual connection are found upon the skin or such mucous membranes as have been so long exposed to the air and to irritation as to partake very much of the nature of true skin. We seldom find venereal sores of any kind high up in the vagina, where the mucous membrane is in a natural condition. I never saw an indurated sore in a woman except upon the true skin, upon the border of the skin and mucous membrane, or just within the labia where the parts were almost as much exposed to the air, and more so to irritation than even the true skin. Mucous membranes thus exposed when subjected to abnormol irritation will become infiltrated and indurated just as the skin will.

Mucous patches upon the labia are generally indurated, whereas when within the mouth they are never so. Indurated sores on men whose prepuce covers the glans are generally found upon

the external surface of the foreskin, or just where the mucous membrane and the true skin merge into each other, whilst they are often found behind the corona, and involving the frenum in persons whose glans-penis remains uncovered or who have been circumcised.

*"The effect produced upon mucous membranes when subject to the action of the syphilitic poison, as indeed, to any irritation, is peculiar. The newly formed matter in them, instead of remaining, for a time at least, part of the living being, is at once thrown off in the form of mucus or pus cells. The consequence is, that it is only in rare and exceptional cases that we get here any marked and well defined induration in consequence of the application of the syphilitic poison. Induration is not necessary to syphilitic infection, nor by any means the true diagnostic symptom of the presence of this poison. I called the attention of the profession to this fact some years ago, in an article entitled, "Do the Manifestations of Syphilis Differ in the Male and Female?" Some of our members may recollect that paper, read before this Society, and in which I stated that they did differ very widely, and that the characteristic hard sore was seldom found in women, and I believe that all the gentlemen who had served as medical examiners under the Social Evil law, endorsed my views at the time; at least, I never heard the correctness of my statements called in question. The local manifestation of syphilis in either sex is not the same upon the moist, healthy mucous membrane and upon the exposed mucous membrane or true skin. Induration is found upon the latter, but not upon the former, and even when a true sore is partly upon the mucous membrane, and partly upon the skin, one portion may be more indurated than the other.

Soft sores upon the mucous membranes may be infecting and truly syphilitic in their nature, and hence give rise to constitutional contamination. The induration, or non-induration, depends more upon the anatomical structures of the parts upon which the ulcers are developed, than upon the nature of the poison.

Lee declares that the infecting form of Syphilis is much more generally communicated by secondary affections than by primary, and, like Babbington, Morgan, Hammond, and other writers of note, declares that we do occasionally have cases of gonorrhœal syphilis and syphilitic gonorrhœa, and that discharges from persons who have had syphilis, will produce new cases of gonorrhœa and chancre. I am not prepared to accept this doctrine.

"The dualists contend that the doctrine that syphilitic infection may follow non-indurated ulcers is founded entirely upon exceptions. I say that in females it is precisely the reverse, and

* Henry Lee.

that induration is the rare exception, and yet, infectious chancres are quite as common as among men. They acknowledge that the blood does not become poisoned on account of the induration, but that the induration is only a consequence of previous empoisonment. If so, how is it that this symptom is so constant, when other symptoms produced by the poison are so variable as to render a correct diagnosis of the disease difficult in many cases. Induration, however, is no longer contended for by the majority of the followers of Bassereau, because practical experience has forced them to abandon it. If there was more than one specific poison, each should produce its like and none other.

The profession is about equally divided upon the doctrine of unicity and duality, but there is a strong tendency to return to the views entertained prior to the announcement of dualism, twenty-five years ago, modified, of course, by the teachings of clinical experience, just as there is to a renewed confidence in the beneficial effects of mercurial treatment, as the only satisfactory treatment for primary syphilis, when judiciously and cautiously pursued. The doctrine announced by Bassereau in 1852, claiming that chancres and chancroids have an entirely distinct origin and can be readily distinguished, has not been confirmed by experience, and even his most enthusiastic supporters have gradually been forced to acknowledge that the distinction drawn by him between the infecting and non-infecting sores, does not hold good, and that there is really no absolutely diagnostic difference which characterizes the true sore, and they now admit that soft sores are often the initial lesions of true syphilis. Basserau's doctrines no longer control medical opinion.

Discussion of Dr. Kennard's Paper.

DR. HUGHES:—All who heard Dr. Kennard's paper, will concede that he has said all that could be said, upon the side of unity of the virus of the chancre and the chancroid. But there are two aspects to the question, and I hope we shall have a thorough discussion of it from the dualistic standpoint. There are many facts which sustain the latter view. Syphilis behaves differently in different constitutions, and in the same constitution at different epochs in life; that it also, sometimes behaves in a manner singularly inconsistent and incompatible with the idea of a single poison being the source of the disease, must also be conceded.

Inoculability of the so-called chancroidal virus; the invariable contamination from the recognized Hunterian chancre, and the fact that syphilitic symptoms so often fail to manifest themselves after what is considered a soft chancre, are problems difficult to solve by those who contend for the existence of but a single virus. But that a single poison should behave in this different manner, is not more singular than the behavior of other poisons, especially those of zymotic diseases.

The poison of scarlatina affords an illustration, manifesting it-

self very differently in different constitutions, producing angina in one case, the simple form in another, etc., showing a peculiar elective affinity for certain individuals at certain periods of life, whilst others as singularly escape.

DR. A. GREEN:—In the consideration of this subject we should not construct our theories upon the facts, nor should we build up a theory and endeavor to make the facts harmonize with it. If a venereal sore follows an impure connection, and is non-infecting, it will develop in from three to five days, whilst, if it be syphilitic and infecting, it will take at least three weeks to develop. With the so-called chancroidal virus, we may produce any number of similar sores upon the same individual, but they are not followed by constitutional symptoms. Our theories should harmonize with these facts.

DR. WM. JOHNSTON:—I undertand the gentleman to say that the infecting chancre will not make its appearance sooner than twenty-one days after exposure. I do not know of any record that sustains that view. Most syphilologists hold that it makes its appearance within from forty-eight hours to six days. Hunter and Ricord state that there may be a variation in the time of about twenty-one days; in my own experience, I have found that in every case, it has made its appearance within nine days. It is said by some writers, that the infecting sore has peculiar characteristics, and such I believe to be the fact; but of late, I have lost confidence in my ability to distinguish between an infecting and a non-infecting sore. I will state here that where there was induration, I have never been able by any course of treatment to prevent the development of constitutional symptoms.

DR. KENNARD:—An attempt has been made to-night, to trace syphilis to a very remote period; I do not know of any authentic account earlier than the fourteenth century. That civilization, and the condition of mankind on this globe may develop new diseases, we are not at liberty to doubt.

A Paper by G. Hart, M. D., on Diffuse Cellulitis, Terminating in Extensive Suppuration, Low Fever, Delirium, and Coma—Ultimate Recovery.*

APRIL, 1878.

John P., aged 26, a native; by occupation a brick maker; was admitted to the City Hospital March 17th, 1876, on account of pain and swelling in his lower limbs, and gave the following family and personal history:

His mother, a brother, and sister, had died of phthisis; father still living and healthy. Patient had been a hard drinker, but quite healthy with the exception that for the last four years he

* See discussion of this paper on page 379, in the May number of this JOURNAL.

had been troubled with shortness of breath, especially after violen exertion. He is also very nervous—at times can scarcely lift a cup of coffee to his mouth without spilling it, (owing, perhaps, to over-stimulation). About two years ago he had chills and fever, from which he soon recovered. One year ago he was so badly poisoned with poison-oak, that the entire surface of his body was affected, and his eyes were so much inflamed that he was blind for several days.

In the autumn of 1875 he again had a chill, which was followed by a severe cough. The latter continued to trouble him for about two weeks, during which time he spat up a good quantity of blood.

Present Attack.—On the evening of March the 15th, the patient says he retired feeling as well as usual; but in the morning he noticed that his feet and legs were swollen, and every attempt to move them caused great pain. Being unable to get out or provide for himself he was sent to the hospital.

On admission it was noted that the patient, a tall, bony man, with light hair and fair complexion, lay upon his back, and every attempt to change his position caused great pain. There was considerable swelling about the feet and legs, that on the left side extending up to and involving the knee, but with very little, if any, discoloration of the skin. He complained of great soreness in his flesh. Pulse slightly increased in frequency, but soft and compressible. Temperature not taken, but did not appear to be extremely high. Respiration somewhat hurried, but no well defined symptoms of lung disease were detected, with the exception of a slight sub-crepitant rāle at the apex on the left side; tongue flabby and heavily coated; bowels constipated; great nervous depression with drowsiness. He was ordered to have a dose of rhubarb and magnesia, to be followed by a mixture of quinine and tincture of iron in syrup every four to six hours, with wine, beef tea and milk, and to have the feet and legs enveloped in linseed poultices.

For three weeks the patient continued in this condition with little change, except a slight increase of the swelling, particularly of the left foot and leg. Fluctuation was now detected in the upper surface of the foot, and an opening having been made, pus was discharged copiously. He appeared to revive a little for a day or two; then it was noticed that the swelling in the right foot began to increase, and to extend rapidly to the thigh. He now sank into a state of almost complete coma, alternating with occasional mutterings of delirium, and the tongue, lips and teeth became black with sordes. A swelling also made its appearance in the left groin just below Poupart's ligament, which soon terminated in abscess and opened spontaneously under a poultice.

Pus was also discovered in the right foot, which was opened and discharged freely. The righ thigh continued to swell, and in less than a week it reached a circumference nearly equal to

that of the patient's body. Fluctuation being detected just below the trochanter major, an incision was made at that point which discharged an enormous quantity of pus.

A long slip of lint, dipped in carbolized oil, was inserted and renewed daily, but not quite filling up the opening the pus continued to discharge freely.

About this time the neck began to swell, and soon came up to a level with the chin. The pulse became more frequent and feeble, the coma more complete, so that the patient could only occasionally be aroused to consciousness, and I began to despair of any possibility of his recovery, as I supposed the swelling of the neck to be due to the same cause, and to correspond in character to that in the extremities. But upon careful examination it was discovered to be an extravasation either of air or gas, and in a few days it began slowly to subside and finally disappeared.

When I surrendered the hospital to Dr. Dean—the present physician in charge—about the 10th of May, 1876, this patient was improving, though still in a precarious condition. The abscess in the thigh continued to discharge freely. In the early part of July I was curious enough to call and inquire what the result had been, and was shown into the ward. I found the patient still upon his back with his leg in a Hodgen's splint. The opening in the upper thigh was still discharging. I learned that it had closed several times, but pus accumulating, it was reopened.

The patient, though greatly emaciated, was now rational and enjoying an excellent appetite, and I learned subsequently that on Dec. 31st, 1876, more than nine months from the date of admission—he was discharged, cured.

The points of special interest in this case are : *a*. The extent and character of the inflammation, and *b*. The obscurity of the cause. Inflammations of cellular tissue are of common occurrence. It is the structure chiefly implicated in the ordinary phlegmons, as also in those spreading and diffusive inflammations which follow septic poisoning, as hospital gangrene, dissecting punctures, etc., and it is not infrequently implicated with the skin in the erysipelatous forms of inflammation.

But we have in this case, an inflammation involving large areas of this tissue, and terminating rapidly in suppuration without involving the skin to any very great extent. In fact, the integuments were more generally of an ashy color than red. How is this to be accounted for?

As there was no history of a septic contagion in this case, we are obliged to refer it to internal causes, or to causes which act from within. May not the causes have been the same, or similar in character to those which give rise to erysipelas? May not this have been in fact an erysipelas extending itself chiefly upon the cellular structures in preference to those of the external integument?

These questions suggest themselves from the fact that erysipelas not infrequently arises from internal causes, or causes acting from within, and from the further fact that, when erysipelas attacks the cellular structures, it not infrequently terminates in suppuration—the product being puriform. Whereas, the products of septic poisoning are usually ichorous.

The predisposing cause in this case was most probably nervous exhaustion, consequent upon the excessive use of alcohlic liquors, and attendant exposures and privations.

Cancer of the Stomach, Liver, Etc.

MAY 4th, 1878.

DR. DEAN:—The specimen I here present was taken from the body of a patient who died April 21st, in the City Hospital. His history was unsatisfactory. I found that two years since he had been in the hospital with intermittent fever for about three and one-half months. His accounts conflicted, but he said he had had dyspepsia, loss of appetite, and coffee-ground vomit, and for a year, dark green stools. We found a tumor filling up the whole right hypochondriac region and extending down to the umbilicus and the left hypochondriac region. There was dullness on percussion over this extent, except over the stomach, where deep percussion elicited the peculiar hollow sound found in a stomach with thick carcinomatous walls. There was also enlargement of the left supra-clavicular glands, and a small round tumor in the thyroid region. This was small, hard, nut-shaped, and freely movable. He could swallow with difficulty. The stethoscope seemed to show that fluids passed with difficulty through the cardiac orifice into the stomach. The tumor appeared to be nodulated. The diagnosis was cancer of the stomach primarily, and of the liver secondarily. I also expected to find the pancreas and receptaculum chyli diseased, as I had seen several cases in which these parts were invaded, where there was cancer of the stomach and enlargement of the supra-clavicular glands. Dr. Scott agreed with me in this case, though others thought it was cancer of the liver as a primary disease, as there was some resonance over the stomach, but it was that of a hollow organ with thickened walls. The fact that only once or twice he vomited this coffee-ground material was due possibly to the fact that so much of the muscular tissue of the stomach was involved that contraction could not take place. At the autopsy I found the whole interior wall of the stomach involved and the liver completely infiltrated. There was an ulcer an inch in diameter near the lower anterior border of the stomach, but so covered by the liver to which it was attached that the contents could not pass into the cavity. The pancreas, the receptaculum chyli, a small portion of the spleen and the thoracic duct were involved, the latter to and around the angle of juncture of the internal jugular and sub-clavian veins. The opening of the duct

into the vessels was plainly visible. The liver, stomach, pancreas and spleen weighed 13 lbs, 5 oz. The middle of the thyroid gland had undergone fibrous induration and subsequent calcification so that it felt and looked like bone. When the calcareous material is removed by acids the form remains. This is one of the finest specimens of the kind I have ever seen.

Sarcoma Carcinomatosa.

I have another specimen to show of a man who has been in the Hospital several times. The first time, in 1867, he was in for a "strain in his back," from which he seemed to recover. In '73 he passed blood several times in his urine, but not again. In November he found a tumor in the right iliac region, which grew, until, when he was admitted, it extended from the lower rib to the crest of the ileum and to within two inches of the umbilicus. Some who examined the case thought it was a tumor of the kidney because the colon seemed to be movable over the tumor, and one thought it was distinct from the kidney. Others believed it to be cystic, and it was aspirated and nothing but a little blood obtained. I felt sure it was a sarcoma or what is called sarcoma carcinomatosa. A few days before the man died we could not detect the colon. At the autopsy found the colon had slipped from the surface of the tumor but could easily be moved back into its former position. The bladder was somewhat thickened; the tumor was as I have described.

Tumor of the Kidney.

DR. HODGEN:—In this connection I will refer to an autopsy of a patient of Dr. Curtman I saw in October. A tumor as large as a cocoanut was on the right side of the abdomen of the child, who was about four years old. It was first seen in July. At the examination the whole of the abdomen was dull except the left upper part. The dullness extended high up into the thorax. We found it to be a tumor of the kidney, as had been supposed, and some of the tissues of the kidney were continuous with it. The tumor weighed 22 lbs, and the child after the tumor was removed weighed 23 lbs, but as some of the contents of the tumor, which seemed to be colloid, escaped, it was doubtless as heavy as the rest of the child.

Discussion of Dr. Dean's Specimens.

DR. DEAN:—One of the members seems to think that the tumor, which I presented as fibrous induration of the thyroid gland, has no connection with that body. I should like to hear his opinion as to what it is.

DR. WM. PORTER:—I did question it for one or two reasons. First, the outline is not that of the thyroid body—but rather that of a lymphatic gland. Second, it is situated near the median line, and the isthmus which passes close to it seems quite distinct from it, and does not seem to be diseased. Third, the patient

had other glands enlarged not far from this, in the supra-clavicular space. Cystic degeneration of this gland is not uncommon, but calcification is more rare. I cannot, for these reasons, agree with Dr. Dean until I have examined the specimen more carefully, which with his permission I will do.

DR. DEAN:—I was not certain when I presented the tumor whether the whole of the gland or merely the isthmus was involved. The thymus gland does not undergo such degeneration and I know of no other having the structure presented in this body, which under the microscope has the appearance of calcified or so-called ossified pseudo-membrane. Also the vessels in it were not arranged as are those of lymphatic glands ordinarily.

DR. BERNAYS:—From the relation and structure of the tumor and the fact that calcification of the thyroid gland is a very frequent occurrence, I think it probable that this is a degeneration of the thyroid. Sometimes the central portion undergoes maceration and is removed, leaving a hollow globe.

DR. PREWITT:—I, too, was impressed with idea that this was a lymphatic gland, for the reasons given by Dr. Porter. It is in front of the isthmus which seems to be uncomplicated. I examined the man from whom the kidney was taken and diagnosed disease of the kidney on account of its position, the bloody urine and the fact that the colon passed over it. I suggested the possibility of its removal and think now had it been done early it might have been done successfully. The kidney was movable; the colon was not attached, and the peritoneum could, I think, have been peeled off.

Cancer: A Local or Blood Disease.

DR. J. M. SCOTT:—The pathology of cancer is important to us when we are called on to advise a patient so afflicted. If it is at the first period of the disease, not an affection of the whole system, but local, it should be removed, but I am rather inclined to believe it a blood disease from the beginning.

DR. BERNAYS.—All eminent authorities agree that cancer is a local disease and never becomes general. It grows at first by infecting its surroundings and afterwards infects at a distance by metastasis. There is no such thing as miasms or inorganic cancerous poisons; it is a poison which has entered into cell life. One of these cells may become loosened from the primary tumor and circulate through the lymphatic or circulatory system and becoming lodged in some other organ, infect the cells which surround it. If this is correct every cancer might be operated on, even if metastasis had taken place. I have seen women 20 years after the removal of a cancer from the breast who were quite well. As cancer is always fatal if not removed, no man who pretends to be a surgeon should refuse to operate, even if it involve half the head or part of the brain.

DR. WM. JOHNSTON :—All authorities do not accept the views regarding the etiology of cancer mentioned by the gentleman who has just spoken. Paget, for instance, who is a most eminent authority, says that "the existence of the morbid material in the blood, whether in the rudimentary or effective state, constitutes the general predisposition to cancer." Paget in his last work on pathology says that in 99 cases out of every 100 the disease will return. Prolong your patient's life if you can, operate if he wishes, but remember that the experience of other men prove that the disease will return.

DR. MOORE :—I cannot believe that cancer is wholly due to local influence. We know that the peculiar blood condition of both cancer and phthisis is transmitted from parent to child, but all such children do not have phthisis or cancer. There must be also a condition favorable to the development of these diseases. If this condition is absent the transmitted influence may remain latent. When, therefore, a cancer is removed, though it is true that the diathesis is not removed, still the conditions necessary to the development of cancer may not again arise and the patient may be free for a long time.

DR. GREGORY :—A patient lately came to consult me with a malignant growth of the mamma; I had removed the same breast twelve months before. I operated again five or six weeks ago; swept around the entire breast, dissected up into the axilla and removed a number of glands, and everything that had to my view anything about like a cancer. I left no skin to cover the wound, which I left open; the wound is granulating, is almost closed, but I think already, that peculiar indolence which is characteristic of a reappearance of the disease is present. I am satisfied that cancer is something *more* than a local disease—just as well satisfied as I am of the fact that it *is* a local disease. If there is a class of constitutional diseases which exhibit themselves in local expressions, it surely seems that cancer belongs to that class. I have seen women affected with unquestionable cancer, who were otherwise in excellent health.

The woman who came to my office a few days ago to show me the tumors that were growing in her breast, looked as well as she looked twelve months ago. I am not certain that I can see that her health has visibly failed since that time, although there is a plain return. I do not hesitate to recommend the removal of a growth which seems to be cancerous, and there is always an understanding between myself and my patient, or with interested friends, that if I remove the growth, it may exhibit itself again at the site of the removal or at some distant point. Now I do not know why we make it a rule to have such an understanding, but this is a point on which we all agree; it is an important point, or it seems to me that this very concordance of surgical prognosis implies that although we propose to remove the mass, and

admit the propriety of the operation, we feel we can seldom completely extirpate the mass, and that, however widely we operate, we are afraid we do not get it all away. That is, we are afraid our patient will have a recurrence, and we are afraid that this recurrence will occur after the lapse of months, not after the lapse of years; we calculate that it is a matter of months rather than of years. If it was a matter of years—this return—we would not, perhaps, be always so anxious to have this gloomy understanding with our patients, but in some way or other we think the disease may return pretty soon, and hence we always operate with this distinct understanding. Now I do not think that there can be a question in the mind of any man in this Society, that cancer, what we call a *cancerous tumor*, is not a simple tumor, that it is not a local affection *alone*; it must be something worse than a local trouble. Such an opinion is the basis of the understanding between ourselves and interested friends, viz: that the removal of the growth may not be as satisfactory as we all would hope. The surgeon fears that the malady will come again where he has operated, or declare itself in some distant site. It is on the basis therefore of pure experience that we believe that cancer is not a merely local trouble, but something more. I am willing to admit that cancer originates in some kind of germ, but the question arises, whence the origin of this cancer germ? Does it originate within or without the body? Does it find its way into the body from some external source, or does it originate within the system? All these are difficult questions; no man can decide them. We all, I think, agree in the opinion that these cancer germs spring up within the body and are not elaborated outside and transplanted into the system, but that we have also something within us, that predisposes to the growth of these germs, when once they have originated in the tissues. Now what this adjuvant condition is, God only knows. I do not believe that the authorities that Dr. Johnston speaks of have penetrated this mystery. I do not think anything of the kind has ever been done either in England or in Germany, and I must say that from my standpoint there has not been one iota of progress on this subject since I entered the profession. As the result of all my study since, I cannot feel that any solid additional knowledge has been given us to stand upon, since I entered upon a medical career. I was a little astonished at the experience of my friend Dr. Bernays. He must have seen a man in Vienna, (Billroth) who believes that cancer is not purely local but is something more than that. I believe that Billroth is one of our very best authorities, and that what he teaches upon this subject is quite as good as what is taught in any country; and I am perfectly certain that Billroth does not believe that cancer is a purely local disease. He certainly does not believe that when he takes out a tumor which he declares to be malignant, that the patient is as free from danger of recurrence as when he removes

a cystic or a fatty growth. I am certain that the best authorities in existence think that there is a peculiar constitutional condition connected with cancers—that cancer is not wholly local. I think we all practice upon this idea; I certainly do, yet I do not hesitate to remove cancer. I would cut away a portion of a man's brain to remove a cancer. But I only remove these growths when they are within reach, and I feel that they are so within my reach that I can take away all the tissue which is infected or affected, without encroaching upon organs which are so absolutely essential to life that I would abridge rather than lengthen the life of my patient by attempting a still more thorough removal. I am perfectly satisfied that if we are successful in removing these growths, we may prolong life, because we forestall secondary cachexy.

When our operations are successful, there is always something satisfactory in removing a growth which seems to be malignant. But on the other hand, we remove malignant growths under equally favorable circumstances, and but a few weeks or months elapse before the disease is re-established. We do not know why this is so, but we know from observation that it is a fact; and until our knowledge becomes more precise, we will always, I presume, attempt to prolong life by the removal of these growths. Nor do I ever look forward to the time when our knowledge will be as precise as we would like to have it. I believe that precision in medicine is a thing that is not likely to be ever attained.

Exostosis of the Pelvis.

MAY 11TH, 1878.

DR. BERNAYS read some notes in reference to a case of Exostosis of the Pelvis, as follows:

GENTLEMEN:—I have here a valuable pelvis which accidentally came into my possession. I bought it in London, and at the time neither the seller nor the buyer knew that the article of purchase was anything more than a common female pelvis, such as obstetricians are accustomed to use, prepared and macerated so as to leave the natural ligaments.

The interesting peculiarity of this pelvis is the small exostosis or osteophyte, which I have marked by a circular dotted line, situated immediately above the pelvic portion of the acetabulum. It corresponds exactly to the place of insertion of the psoas minor muscle.

Exostoses of the pelvis are divided into compact exostosis, and into spongy tumors.

1. The compact exostoses are very rare, but when they do occur are generally multiple. They are either of a fungous shape, having a broad head on a pedicle, or they are more conical and triangular in shape; their structure is more dense than normal bone tissue, extremely hard and resembling ivory. It was formerly supposed that they were nearly always depend-

ent on syphilis, but we are not obliged to take heed of any such vague hypothesis at the present time.

2. The spongy exostosis grows to an enormous size, as the plates from *Lenoir's Atlas D'Accouchements* demonstrate.

Practically, these exostoses may become of great importance by causing trouble during delivery. It is not necessary to speak of the kind of cases when the tumor is a large spongy exostosis, because the subject has been exhaustively treated of by many prominent authors.

The point I want to make is in close relation to my specimen. My old Professor of Obstetrics, W. Lange, of Heidelberg, used to relate a case of rupture of the uterus during labor, in which the corpus delicti as proven by the post mortem, was a small exostosis only one-fourth of an inch long, situated as mine is, on the margin of the true pelvis. As the head was pressed down by the contraction of the womb over the child, we can readily understand how a perforation and a rupture of the uterus might take place.

We all know how dark a subject, and ill understood, the causes of rupture of the uterus are, and if, by giving this little addition to the already very large literature on the subject to the profession by means of our Proceedings, I shall add something to the knowledge of some colleague in the backwoods, it will always be a source of pleasure to me.

A Fracture of the Vertebræ Injuring the Cauda Equina.

DR. HODGEN:—A patient entered the City Hospital, Nov., 1877, who had, while walking on a railroad track, received a blow in the back from a freight car which knocked him down. It was ascertained that he had paralysis of the inferior extremities. I was satisfied that the back was broken about the third or fourth lumbar vertebra. The natural concavity at this point had disappeared and there was instead, some prominence. The paralysis was pretty complete of the lower extremities, but there was sensibility of the inner side of the thigh, near the top of the upper portion of the limb, and also, from the inner portion of the leg below that point down to the ankle, the paralysis was not very marked. The patient was placed in a plaster of Paris splint, but the paralysis did not improve. Electricity failed to stimulate the muscles. The bladder emptied itself seemingly by reflex action, without the knowledge of the patient. After a while it was found that the urine was decomposing and there was evidence of cystitis. Although remaining in bed so long, there was no bed-sore on the back, but bed-sores existed on the heels, and particularly about the head of the fibula of each side. The patient did not suffer much pain, but had a good deal of trouble in passing urine, which was frequently drawn off and the bladder washed out. He grew worse and died recently. On examination it was found that the body of the third lumbar vertebra was fractured, from about the middle of the upper surface

down to the junction of the anterior to lower surface, and it was displaced forward. The displacement between the second and third vertebræ was such as to occlude almost entirely the canal.

The point of fracture, as is seen in the specimen which I present, was below the spinal cord. When an extremity supplied by the nerves that are given off by the spinal cord below the point of injury is irritated, we have reflex action. This was not present in this instance, for the injury was of the cauda equina and not of the cord. The lumbar nerves above the injury supply that portion of the thigh in which there was sensibility. The bladder is thickened and small in capacity, and contained five calculi. One of the kidneys was smaller than normal, the other larger. The symptoms connected with the urinary tract were due to the disturbance of the bladder from the irritation of urine, the inflammation extending from that point back to the kidneys. I ask members to notice that there is now no evidence of inflammation in the spinal cord, and that union has taken place in the bony structures. The patient would doubtless have lived had it not been for the disease of the urinary organs.

In the second specimen—a fracture of the middle of the clavicle—we have a deformity which is common and might be expected. Looking at it in a vertical direction, the outer end of the bone is thrust forward, and has united with the other in a twisted position. In fractures of the clavicle the shoulder falls downward, forward and inward, and carries the outer fragment with it. Thus the twisted form is given.

DR. BERNAYS:—Is there not injury sufficient in the spinal cord in the first case to cause death? In the second specimen the deformity may be due to the sub-clavius muscle which tends to draw the inner fragment backwards and to rotate it inwards.

DR. HODGEN:—In case first the fracture is entirely below the spinal cord, though patients have lived for many years with fractures as high as the upper dorsal vertebra. Patients do not necessarily die of fractures of the spine so low down and there was no trouble with the spinal nerves above this point. As to the other case we must remember that the sub-clavius is attached to nearly two-thirds of the under surface of the clavicle, and the fibres attached to the outer as well as to the inner fragment tend to move in the same direction.

DR. KENNARD:—What is your experience about plaster of Paris in fractures of the clavicle.

DR. HODGEN—I have not used it in such cases. I saw a patient recently who traveled to Colorado and back with a plaster pad over a fracture of this kind without seeming deformity. It is not right to put a compress over a projecting angle in these deformities, but I believe the plaster, properly adjusted along the

entire length of the shoulder opposite the clavicle, would be a good application.

Dr. Dickinson read a paper on some interesting points in the surgical treatment of cancer.

Ulcer of the Stomach.

May 18th, 1878.

Dr. Prewitt:—I present this specimen of gastric ulcer from a gentleman 45 years of age, who had complained for a long time of gastric symptoms or as some thought dyspepsia. For the last few months there was a great deal of pain, often severe. A week since he participated in the laying of the corner stone of the County Court House. During the next few days he felt worse, and iron was prescribed for him by Dr. Barnes. Last Sunday he had a profuse hemmorrhage. Dr. Barnes saw him at once. He complained of pain in the lumbar region, constipation and was very weak. I was called in consultation on Tuesday. The patient was still suffering, and his abdomen was very tympanitic. A diagnosis of ulcer of the stomach was made and we resolved to nourish him by enemata, and have him abstain from taking anything into the stomach. Hypodermic injections of morphia were given and hot fomentations applied. The tympanitis subsided and the tenderness allayed. On Wednesday and Thursday his temperature was 104 and 105. He passed a quantity of thick black fæces, the color being probably due to the iron which had been given as a styptic. On Friday his temperature fell to 103, and the pulse was small and feeble. Dr. P. G. Robinson was now called in and sustained the diagnosis already made. The patient died during the night. The stomach, as here seen, has a large ulcer on the lesser curvature upon its posterior border. The surface is red and congested. There is a small, partially healed ulcer near the larger one. The pyloric end of the stomach is much contracted, so as to look more like an intestine than a stomach. The cardiac portion was dilated. The ulcer had not perforated the wall of the viscus, and I am at a loss to account for the severe pains which he had in the lumbar region, which he thought was lumbago. There was little or no pain in the dorsal region.

Dr. P. G. Robinson:—When I saw the patient last night I thought from the symptoms that there had been perforation, but the point which seemed to contra-indicate this, was the absence of peritonitis or evidence of extravasation. I thought, however, that there might have been a small perforating ulcer. The evidence of ulcer was quite plain.

Dr. Bernays:—The arteries and veins of the stomach run immediately under the peritoneal covering and their branches enter into the substance of the stomach by numerous branches. If an embolus is formed in one of these small arteries the part supplied by the branches of the occluded vessel will become a hem-

orrhagic infarct, which is dead tissue. It might be brought to life again were it not for the influence of the gastric juice by which the infarct is digested. When this process reaches the clot at the bottom of the ulcer, we have hemorrhage more or less severe, according to the size of the artery in which the clot is. This may be just beneath the peritoneum, and so a perforation results. Virchow believes that there is a congenital malformation or weakness of the circulatory system in many of these cases, most of them being young girls of strumous diatheses. In these he has found the intercostal arteries coming off from the aorta irregularly. Two facts favor the theory of the arterial origin of these ulcers. One is that the ulcer is nearly always round or slightly elliptical, the shape of the part supplied by the branches of a single artery. Then they have what Virchow calls a step shape upon the sides, corresponding to the distribution of the branches of a small artery in this region. The treatment employed in these cases in England and Germany is to give small pieces of ice, and nothing else but a little milk, or other soft food.

DR. WESSELER:—I am now giving to a case of this kind one-half grain of nitrate of silver with a grain of opium once or twice daily.

DR. BOISLINIERE:—There is sometimes a post mortem digestion of the stomach of children by the gastric juice, and the question arose as to whether the child died from poison, or from the ulcer, or whether or not the appearance of the stomach was due to post mortem digestion. I hope some one will give the differential symptoms of these conditions.

The Mode of Sustaining Life in Gastric Ulcer.

DR. P. G. ROBINSON:—I will recall to the attention of members a case of gastric ulcer, reported in the *Clinical Record*, in which the treatment consisted in injecting milk, beef tea, cod liver oil, subcutaneously. The patient was sustained by repeated injections for ten days, when food was given by the mouth and complete recovery resulted.

DR. FORD:—It is an important question how to sustain life where the gastric juice is the prime cause of offense; how to introduce food except through the intermediation of the gastric juice upon which we depend for the solution of food. It may be that some of these ulcers depend upon embolism, but I know of no facts which will sustain the theory that this is their exclusive origin. It is probable that many cases arise in excoriations or traumatisms of the gastric mucous membrane. There is a great similarity between the action of the gastric juice in causing and maintaining these ulcers, and the post mortem digestion of the stomach, especially in children who have died from idiopathic fevers. In these cases the gastro-intestinal epithelium is

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"*Dr. Clin's Capsules and Dragees of Bromide of Camphor* are those employed in all the experiments made in the Hospitals of Paris."—*Union Medicale.*

Dr. Clin's Capsules contain 4 grains, and the Dragees 2 grains, of genuine Bromide of Camphor.

N. B.—*Dr. Clin's Gluten Capsules* are very rapidly dissolved in the stomach, and should be preferably employed for a long treatment, and when the administering of Bromide of Camphor at a great dose would be considered as beneficial.

Prepared by CLIN & CO., Pharmacists, Paris.

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OF UNCHANGEABLE IODIDE OF IRON.

Blancard's Pills of Iodide of Iron are so scrupulously prepared, and so well made, that none other have acquired a so well deserved favor among physicians and pharmaceutists. Each pill, containing one grain of proto-iodide of iron, is covered with finely pulverised iron, and covered with balsam of tolu. Dose, two to six pills a day. The genuine have a *reactive silver seal* attached to the lower part of the cork, and a green label on the wrapper, bearing the fac-simile of the signature of

Pharmacien, No. 40 Rue Bonaparte, Paris.

without which none are genuine.

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COD LIVER OIL.

The immeasurable therapeutic superiority of this oil over all other kinds of Cod Liver Oils, sold in Europe or in this market, is due to the addition of IODINE, BROMINE and PHOSPHORUS.

This oil possesses the nourishing properties of Cod Liver Oil, and also the tonic, stimulant and alterative virtues of IODINE, BROMINE and PHOSPHORUS, which are added in such proportion as to render FOUGERA'S COD LIVER OIL FIVE TIMES STRONGER and more efficacious than pure Cod Liver Oil.

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(DAMPNESS SPOILS THEM.)

A most useful, convenient, and economical preparation always ready for immediate use. Clean, prompt in its action, and keeps unaltered in any climate, easily transported and pliable, so as to be applied to all parts and surfaces of the body. It is prepared of two strengths:—No. 1, of pure mustard; No 2, of half mustard. Each kind put up separately, in boxes of 10 plasters. Price, 40 cents.

DIRECTIONS.—Dip the plaster, a minute or two, in cold water, and apply with a band.

FOUGERA'S IODO-FERRO-PHOSPHATED

ELIXIR OF HORSE-RADISH.

This Elixir contains Iodine, Pyrophosphate of Iron, the active principle of anti-scorbutic and aromatic plants and acts as a *tonic, stimulant, emmenagogue,* and *a powerful regenerator of the blood.* It is an invaluable remedy for all constitutional disorders due to the impurity and poverty of the blood. One of the advantages of this new preparation consists in combining the virtues of Iodine and Iron, without the inky taste of Iodide of Iron.

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(Iceland Moss, Lactucarium, Ipecac and Tolu.)

Used with great success against nervous and convulsive coughs, Whooping Cough, Acute Bronchitis, Chronic Catarrh, Influenza, &c.

Wakefulness Cough, and other sufferings in Consumption, are greatly relieved by the soothing and expectorant properties of this paste.

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Is one of the most important and useful discoveries of the age, but it is not (as certain dealers of bad faith pretend) a preparation that any one can make, for it is not manufactured with a mustard that every one can buy.

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Is the invention of Mr. P. RIGOLLOT, who is the exclusive owner; it is the only preparation which has been adopted by the civil and military hospitals and the armies and navies of France and England, and which has obtained a medal at the Centennial Exposition at Philadelphia. All other mustard plasters or leaves of whatever name, are but imitations of the original

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Physicians will find it the most reliable sinapism, prompt and certain in its action, and will therefore always prescribe it. Every sheet in order to be genuine must bear the annexed signature of the inventor, *P. Rigollot*

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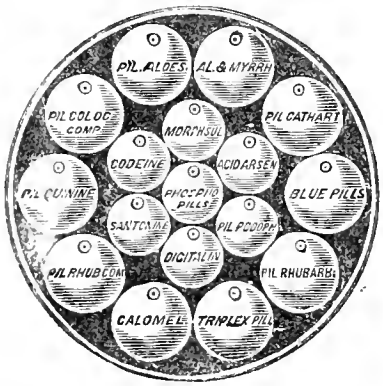

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These new pills and granules are the only real improvement made in pills for many years. While they are a novelty, their principal claim to superiority lies in the fact that they have undoubted advantages over all other pills, and are at once the **perfection of accuracy,** and a **safeguard against mistakes or substitution.** Their claim to the confidence of the medical profession and pharmacists rest, on the **entire purity of the ingredients used; perfect accuracy of composition and uniformity of size; ready solubility; tastelessness and harmlessness of the coating,** which is vegetable; **perfect preservation in all climates; entire security against mistakes or substitution,** every pill or granule **having printed upon its surface** either its common name or its composition, as Pil. Cath. comp., or Pil. Quin. 1 grain.

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E. FOUGERA & CO., Importing Pharmacists,

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These pills will be sent free by mail on receipt of price.

Tilden & Co.'s Extract of Malt.

AND ITS COMBINATIONS.

It is prepared according to Liebig's method, *and is evaporated in Vacuo at less than* 100° *F., a method we have employed for over thirty years,* and at no point in its preparation is it subjected to a temperature to injure or impair the converting or digestive property of the important element called DIASTASE.

Among the merits which distinguish the EXTRACT of MALT prepared by us from the special formula of Baron Liebig, is its great richness in sugar of Malt, prepared in a VACUUM at a low temperature: it preserves the true amber color indicative of purity, as well as proper method of preparation, as also—the following elements unimpaired: *Sugar of Malt—Dextro-Maltose—Dextrine—Diastase—Albuminoids—Carbo-hydrates—Phosphates and Phosphoric Acid*

Pure Extract of Malt.—This is of light amber color, and is the true Extract of Malt without flavoring.

Pure Extract of Malt with Hops.—For those who prefer it with Hops to obtain the bitter tonic of strong ale.

Pure Extract of Malt with Firwein.—This is combined with one-third Firwein and has been used with marked success in cases of consumption with impaired digestion.

Pure Extract of Malt with Elixir Iodo-Bromide of Calcium Compound.—Alterative.—Equal parts of each.

Pure Extract of Malt, Ferrated.—Each teaspoonful contains two grains Pyrophate Iron.

Pure Extract of Malt with Quinine and Iron.—Each teaspoonful contains two grains of Citrate of Iron and Quinia.

Pure Extract of Malt with Iodide of Iron.—Each teaspoonful contains two grains of Iodide of Iron.

Pure Extract of Malt with Iodide of Iron and Manganese.—Each dessert-spoonful contains one grain each.

Pure Extract of Malt with Hypophosphites.—Each dessertspoonful contains two grains Hypophosphite Lime, two grains Hypophosphite Soda, one and one-half grains Hypophosphite Potassa, and one grain Hypophosphite Iron.

Pure Extract of Malt with Chemical Food. (Phosphates Lime. Soda, Potassa and Iron.)—Each dessertspoonful contains the same proportion of Chemical Food.

Pure Extract of Malt, with Beef, Wine and Iron.—Each tablespoonful represents two grains Soluble Citrate of Iron, one ounce finely-chopped raw lean Beef, with equal quantity of Sherry Wine and Pure Extract of Malt.

Pure Extract of Malt with Pepsin.—Each dessertspoonful contains three grains of Pepsin.

Pure Extract of Malt with Pepsin and Bismuth.—Each dessertspoonful contains three grains of Pepsin and one grain of Ammonio-Citrate of Bismuth.

Pure Extract of Malt with Cod Liver Oil.—Equal parts.

Pure Extract of Malt with Cod Liver Oil and Iodide of Iron.—Each dessertspoonful contains one grain Iodide of Iron.

Pure Extract of Malt with Cod Liver Oil and Phosphorous.—One dessertspoonful contains one one-hundredth grain of Phosphorous.

Pure Extract of Malt with Cod Liver Oil, Iron and Nux Vomica.

TILDEN & COMPANY,

NEW LEBANON, N. Y.

176 William Street, New York.

Trommer's Extract of Malt.

The rapidly increasing demand for our IMPROVED EXTRACT OF MALT, during the four years that it has been manufactured and offered to the medical profession in America, justifies the belief that in its production here we are meeting a generally felt want.

Long experience in manufacturing Malt Extract has enabled us to completely overcome the many difficulties attending its manufacture in large quantity; and we positively assure the profession that our Extract of Malt is not only perfectly pure and reliable, but that it will keep for years, in any climate, without fermenting or molding, and that its flavor actually improves by age. Our Extract is guaranteed to equal, in every respect, the best German make, while, by avoiding the expenses of importation, it is afforded at less than half the price of the foreign article.

The Malt from which it is made, is obtained by carefully malting the very best quality of selected Toronto Canada Barley. The Extract is prepared by an improved process, which prevents injury to its properties or flavor by excess of heat **It represents the soluble constituents of Malt and Hops.** viz: Malt Sugar, Dextrine, Diastase, Resin and Bitter of Hops, Phosphates of Lime and Magnesia, and Alkaline Salts.

Attention is invited to the following analysis of this Extract, as given by S. H. Douglas, Professor of Chemistry, University of Michigan, Ann Arbor.

TROMMER EXTRACT OF MALT CO:—I enclose herewith my analysis of your Extract of Malt:

Malt Sugar, 46.1; Dextrine, Hop-bitter, Extractive Matter, 23.6; Albuminous Matter (Diastase), 2.469; Ash—Phosphates, 1.712; Alkalies, .377; Water, 25 7 Total, 99.958.

In comparing the above analysis with that of the Extract of Malt of the German Pharmacopœia, as given by Hager, that has been so generally received by the profession, I find it to substantially agree with that article

Yours truly, SILAS H. DOUGLAS,
Prof. of Analytical and Applied Chemistry.

This invaluable preparation is highly recommended by the medical profession, as a most effective therapeutic agent, for the restoration of delicate and exhausted constitutions. It is very nutritious, being rich in both muscle and fat producing materials.

The very large proportion of Diastase renders it most effective in those forms of disease originating in imperfect digestion of the starchy elements of food.

A single dose of the Improved Trommer's Extract of Malt, contains a larger quantity of the active properties of Malt, than a pint of the best ale or porter; and not having undergone fermentation, is absolutely free from alcohol and carbonic acid.

The dose of adults is from a dessert to a tablespoonful three times daily. It is best taken after meals, pure, or mixed with a glass of milk, or in water, wine, or any kind of spirituous liquor. Each bottle contains 1 1-2 lbs of the Extract.

Our preparations of Malt are for sale by druggists generally throughout the United States and Canadas, at the following prices:

EXTRACT OF MALT,				*With Hops (Plain)*,	$1.00
"	"	"	"	*Pyrophosphate of Iron (Ferrated)*..	1.00
"	"	"	"	*Cod Liver Oil*..	1.00
"	"	"	"	*Cod Liver Oil and Iodide of Iron*..	1.00
"	"	"	"	*Cod Liver Oil and Phosphorus*..	1.00
"	"	"	"	*Hypophosphites*..	1.50
"	"	"	"	*Iodides*..	1.50
"	"	"	"	*Alteratives*..	1.50
"	"	"	"	*Citrate of Iron and Quinia*..	1.50
"	"	"	"	*Pepsin*..	1.50

Manufactured by

TROMMER EXTRACT OF MALT CO.,

FREMONT, OHIO.